DOCUMENT RESUME

ED 430 854 SO 029 730

AUTHOR Schukar, Ron; Singleton, Laurel; Parisi, Lynn

TITLE Service Learning in the Middle School Curriculum: Supplement.

INSTITUTION Social Science Education Consortium, Inc., Boulder, CO.

SPONS AGENCY Corporation for National Service.
ISBN ISBN-0-89994-392-6
PUB DATE 1998-00-00
NOTE 82p.; For resource book, see ED 413 278.
CONTRACT 95CA000033
AVAILABLE FROM Social Science Education Consortium, P.O. Box 21270, Boulder, CO 80301-4270.
PUB TYPE Guides - Non-Classroom (055)
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Citizenship Education; Community Services; Curriculum Development; Ecology; Environmental Education; *Interdisciplinary Approach; *Middle Schools; *School Community Programs; *Service Learning; Social Studies; *Student Participation

ABSTRACT

This supplement contains five unit summaries on service learning that were developed during the 1996 summer institutes conducted by the Social Science Education Consortium (SSEC) for teams of middle school teachers selected from the western United States. Each unit summary in the supplement has been developed to correspond in style to unit summaries provided in SSEC's publication, "Service Learning in the Middle School Curriculum: A Resource Book," which was developed from SSEC's National Science Foundation funded project on service learning. The units selected for this supplement represent a variety of topics areas and curriculum enhancements: (1) "ACHES (Adolescent and Community Health Education Squad)"; (2) "Earth Inc."; (3) "Student Action for the Environment (SAFE Project)"; (4) "Trash Bashers"; and (5) "Where's Waldport?" The supplement notes that the units include more language arts and mathematics involvement than the units in the original book. In addition, the supplement also presents other ideas linking language arts and service: (1) "Biographies"; (2) "Novels for Young People"; (3) "Poetry"; (4) "Reading to Younger Children"; (5) "Research Papers"; and (6) "Writing/Speaking." The supplement concludes with a list of current resources on service learning published since SSEC's original book was completed in 1996. (BT)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Service Learning in the Middle School Curriculum

ED 430 854

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY HAS BEEN GRANTED BY

L. R. Singleton

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Supplement

SO 029 730

BEST COPY AVAILABLE

Social Science Education Consortium

SERVICE LEARNING
IN THE MIDDLE SCHOOL CURRICULUM:
SUPPLEMENT

1998

Social Science Education Consortium
Boulder, Colorado

This publication was developed with support of the Corporation for National Service, Grant Number 95CA000033. Any opinions, findings, conclusions, and recommendations expressed in this publication are those of the project staff and do not necessarily reflect the views of the Corporation for National Service.

Project Staff

Ron Schukar, Project Director

Laurel Singleton, Project Staff

Lynn Parisi, Project Staff

Cindy Cook, Production Manager and Project Secretary

Copyright © 1998 Social Science Education Consortium. All rights reserved.

Ordering Information

Social Science Education Consortium
P.O. Box 21270
Boulder, CO 80301-4270

ISBN 0-89994-392-6

Contents

Acknowledgments iv

Chapter 1: Introduction 1

Chapter 2: Model Integrated Service Learning Projects 5

- ACHES (Adolescent and Community Health Education Squad) 5
- Earth Inc. 14
- Student Action for the Environment (SAFE Project) 24
- Trash Bashers 38
- Where's Waldport? 53

Chapter 3: Linking Language Arts with Service 63

- Biographies 63
- Novels for Young People 65
- Poetry 68
- Reading to Younger Children 69
- Research Papers 71
- Writing/Speaking 72

Chapter 4: New Resources 73

© 1998 SSEC

Acknowledgments

In 1996, the SSEC published *Service Learning in the Middle School Curriculum: A Resource Book*, which resulted from a National Science Foundation series of institutes for middle school science and social studies teachers. That book, which we are assuming most purchasers of this supplement have already read, provides an overview of service learning, presents a model for designing and implementing a service learning program, describes several service-enhanced interdisciplinary units developed and implemented by teachers who participated in the NSF project, discusses techniques for assessing integrated service learning projects, and concludes with a resource list.

Shortly after the book was published, we conducted two summer institutes on service learning in the middle school, this time funded by the Corporation for National Service. The ten teams of middle school educators who participated in those institutes also developed and implemented service-enhanced interdisciplinary units, units that we thought would provide an excellent supplement to our original resource book.

This supplement would not have been possible without the efforts of the project staff, whose names are listed on page ii. I thank them for their energy, creativity, and professional and personal integrity. Of course, we would not have had a project at all without the schools and teachers who took part in the 1996 summer institutes. My thanks to all. I hope that the benefits to each far outweighed the costs.

Creswell Middle School
Cresswell, Oregon
- Dee Hood
- Steve Shinn
- Kim Spellman
- Kristine Waibel

Desert Sky Middle School
Glendale, Arizona
- Debra Bjorna
- Andrea Geith
- Cassie Turley
- Howard Waltz, III

Ken Caryl Middle School
Littleton, Colorado
- Babette Cartelli
- Kiplynn Forsythe
- Connie McLaughlin
- Deb Wearner

Hilo Intermediate School
Hilo, Hawaii
- Kathryn Cross
- Grace Tien-Hong Chao
- Corinne Kanno
- Pascalle Creek Pinner

Meadow Hill Middle School
Missoula, Montana
- Yvonne Anderson
- Ann Combo
- Lynn Farmer
- Sherry Marsillo

Springer Middle School
Wilmington, Delaware
- Kim Carroll
- Karl Hoffmann
- Michelle Kutch
- Noreen O'Neill

© 1998 SSEC

Todd County Middle School
Mission, South Dakota
Jean Ann Brown
Bonnie Larvae
Stacy Merrick
Patricia Nelson

T.R. Pollicita Middle School
Daly City, California
Julie Brosnan
Lisa Greenhill
Sabrina Ramirez
Cristina Robles

Wai'anae Intermediate School
Wai'anae, Hawaii
Karen Arincorayan
Alicia Feliciano
Litia Ho
June Minakami

Waldport Middle School
Waldport, Oregon
Bob Briggs
Tod Graham
Janeen Kelly
Debbie Kilduff

Ron Schukar, Director
Integrating Service Learning into
Middle-Level Education

© 1998 SSEC

Chapter 1

Introduction

On October 1, 1995, the Social Science Education Consortium (SSEC) was provided funding by the Corporation for National Service, Learn and Serve America program, for a national training and technical assistance project. The goal of the multi-year project is to assist middle school educators in integrating service learning activities into existing middle school curricula. The project, Integrating Service Learning into Middle-Level Education, follows SSEC's successful National Science Foundation funded project, Enhancing the Middle School Curriculum Through Service Learning.

During the summer of 1996, SSEC conducted two summer institutes for teams of middle school teachers selected from the western United States. Each of the two-week institutes provided in-depth training on the design and implementation of service learning in the middle school curriculum. During the institute, teams were also provided time and assistance to develop model units that integrated service learning into their academic curriculums. In the school year following the summer institute, teams taught and evaluated their units.

The five unit summaries selected for this supplement were developed during the 1996 summer institutes. Each unit summary has been developed to correspond in style to unit summaries provided in SSEC's publication, *Service Learning in the Middle School Curriculum: A Resource Book*, which was developed from SSEC's National Science Foundation funded project on service learning. The units selected for this supplement represent a variety of topic areas and curriculum enhancements.

ACHES (Adolescent and Community Health Education Squad) was developed by an interdisciplinary teaching team at Wai'anae Intermediate School in Wai'anae, Hawaii. The central curricular theme of the unit, nutrition, is a very real problem in the Wai'anae community. With changes to a more westernized diet and away from the traditional Hawaiian diet, high rates of heart disease, cancer, strokes, and diabetes occur with great regularity. The rates of death from diet-related diseases for Native Hawaiians are the highest in

© 1998 SSEC

the nation. Although principally a science/nutrition unit, the team effectively integrated math, social studies, and language arts into the instructional plan. The service component focuses on community education and awareness of nutritional alternatives. One of the greatest strengths of the unit is its emphasis on meeting real community needs.

Earth Inc. was developed by an interdisciplinary teaching team at Desert Sky Middle School in Glendale, Arizona. The unit, which was taught previous to the team's attending the service learning institute, focuses on water, habitat, and indigenous animal issues in the Arizona desert. In the previously taught unit, students role played an advertising team seeking to inform residents of Arizona about desert water and habitat issues. During the institute, the unit was enhanced with a service learning component in which students actually do inform their community about the fragility of the desert's resources. During the interdisciplinary unit, students now write and record public service announcements for radio and television, develop water conservation brochures, and create poster art for display in the Phoenix International Airport.

Student Action for the Environment (SAFE Project) is an interdisciplinary unit in which science is the lead discipline and environmental stewardship is the primary theme. Created by an interdisciplinary teaching team at Ken Caryl Middle School in Littleton, Colorado, this ambitious project provides students an opportunity to study human impact on the environment. The service enhancement provides students a process for preserving and restoring environments in the local community. The project primarily links the ecosystem unit taught in science with the geography unit taught in social studies. Math and language arts are also woven effectively into the unit that was taught to more than 140 seventh-grade students. One of the more unique aspects of the unit is the many different service experiences provided to students. Eight alternatives—including a school recycling program, planting and maintaining a xeriscape garden at the school, community graffiti reduction, and a wildlife refugee restoration project—are provided for students.

At T.R. Pollicita Middle School in Daly City, California, an interdisciplinary team created **Trash Bashers**. Concern regarding litter, graffiti, pollution, and lack of student interest in the school environment provided the impetus for this four-week unit that focuses on the 3R's: Reduce, Reuse, Recycle. The primary goal of the project is for students to develop a sense of pride in the school community and to address specific issues of waste and litter on and around the school campus. The project links science, language arts, and social studies.

© 1998 SSEC

Uniquely, the project also integrates Newcomers classes, which are designed for students who have just arrived in the United States. Service activities include a student-initiated paper recycling program for the school; the development of a "trash basher" brochure to educate others about the 3R's; and a community "trash bash" in which students work with local business and community agencies to put on a community event emphasizing the community environment.

Waldport is a small community located on the central coast of Oregon. Like many small communities, it is undergoing big changes, the most notable being a change in the economy. Where commercial fishing and logging were once the mainstays of the Waldport economy, tourism is now the primary industry. **Where's Waldport?** was developed by an interdisciplinary team from Waldport Middle School. The unit topic was selected to meet a real need in the community and to teach the core academic content areas required of sixth-grade students. Although anchored in geography, the unit integrates science, language arts/communications, math, and art. The service project consists of students' working with members of their local community to plan, develop, and distribute a packet of community information brochures for new residents and visitors to the Waldport community.

Summaries of these units are provided in Chapter 2. Because our new project includes more academic disciplines than the National Science Foundation project, these units include more language arts and math involvement than the units in our original book. Chapter 3 presents a few additional ideas linking language arts and service. Chapter 4 lists the best new resources on service learning published since SSEC's resource book was completed in 1996.

© 1998 SSEC

Chapter 2

Model Integrated Service Learning Projects

ACHES (Adolescent and Community Health Education Squad)

Site: Wai'anae, Hawaii

Contact: Karen Arincorayan, Litia Ho, June Minakami, and Wendell Thomas, Wai'anae Intermediate School, 85-626 Farrington Highway, Wai'anae, HI 96792; 808/696-2922

Community Profile

Wai'anae Intermediate School is a public school located on the leeward coast of Oahu. The coast is considered to be a rural-agricultural area that is geographically removed from the urban center of Honolulu. Approximately 50 percent of the community identifies itself as Native Hawaiian.

A large number of students who attend Wai'anae Intermediate School come from families with numerous socioeconomic problems, including unemployment, poverty, and homelessness. Only 61 percent of the parents have at least a high school education, and only 7 percent are college graduates. Unemployment rates are higher and median incomes lower than in other areas of the island. More Wai'anae families have incomes less than $15,000 than in other communities on Oahu. Consequently, approximately 23 percent of the families are on public assistance. In addition, 57 percent of our students are in the free/reduced lunch program, and homelessness is a growing problem in the area.

Due to the above-mentioned factors, the Wai'anae Intermediate staff is concerned with meeting the nutritional needs of the student population to combat the declining health of the community.

© 1998 SSEC

Unit Background

After much of the Hawaiian population met its demise through infectious disease, and after vaccines and sanitation began to control these illnesses, a new epidemic began claiming the lives of the Hawaiian people. This epidemic is diet-related disease. The change to a more westernized diet and away from the traditional Hawaiian diet has brought with it very high rates of heart disease, cancer, strokes, and diabetes. In fact, the rates of death from these diet-related diseases for pure Hawaiians are the highest in the nation.

Because of these diet-related health problems and the school staff's overall concern about the health of our students, we chose a nutrition focus for the unit.

Unit Topic

The topic of the unit was nutrition. The approach taken was to look at a wide array of subtopics related to nutrition—the nutritional values of foods, food groups, how to make sound decisions about diet, the consequences of an unhealthy diet, and the relationship between diet and other aspects of culture.

The community problem to which the unit was addressed was the epidemic of diet-related diseases among members of our community, particularly Native Hawaiians. Our planned service project was to conduct educational activities for the community on how to make sound decisions related to diet.

Academic Goals

Academic goals in the four core curriculum areas were aligned with the Hawaii State Performance Standards.

Science

Students will be able to:

- S1. Demonstrate ability to organize data to create the order necessary for understanding.
- S2. Analyze, evaluate, and discuss findings with clarity in oral, written, or graphic format.
- S3. Classify and organize the diversity of living things in the biosphere according to their physical attributes and life activities as they relate to the project.

© 1998 SSEC

- S4. Demonstrate an understanding that the earth provides a variety of resources (natural, finite, nonrenewable) that benefit all living things.
- S5. Demonstrate an understanding of how humans are dependent upon the earth and are responsible for the earth's ecosystem.
- S6. Practice the principle of *malama I ka'aina* (take care of, preserve, and protect the environment).

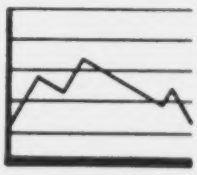
Social Studies

Students will be able to:

- SS1. Describe how elements of a culture (e.g., traditions, beliefs and values, behavior patterns, and artifacts) relate to each other.
- SS2. Define, use, and apply elements of scale, symbols, and direction in the creation and use of maps.
- SS3. Read, infer from, and construct visual representations of geographic information (e.g., maps and globes).
- SS4. Describe ways that public opinion influences personal decision making and government policy on public issues.
- SS5. Identify and discuss how the common good can be strengthened through various forms of citizen action.
- SS6. Describe and discuss the causes, consequences, and possible solutions to persisting, contemporary, and emerging global concerns such as health, security, resource allocation, economic development, and environmental quality, especially to island communities.

Math

Students will be able to:



- M1. Collect, organize, and describe data using a systematic approach.
- M2. Collect and gather statistical information on food consumption in a 24-hour period.
- M3. Organize and use a table.

© 1998 SSEC

- M4. Display data using appropriate representation methods (i.e., bar, line, pictograph).
- M5. Organize data into appropriate graph).
- M6. Describe how graphs can be used to make predictions.
- M7. Identify dependent and independent events in the height-weight analysis.
- M8. Solve real-life problems using statistics and probability.

Language Arts

Students will be able to:

- LA1. Use literature to build a larger understanding of nutrition.
- LA2. Use a variety of reference materials.
- LA3. Organize writing logically.
- LA4. Use conventions of language.

Service Learning Goals

- Collaborate with school and community members in gathering nutritional recipes.
- Apply academic and cognitive skills while making decisions on preparation and consumption of foods.
- Create, prepare, and serve nutritional food samples to others in the school.
- Create and distribute informational handout with recipes and optimal height-weight guidelines.
- Identify and interact with paraprofessionals and professionals in the community related to the project.
- Reflect on consequences related to nutrition—

  Triumph: Making wise choices toward eating nutritious foods that are low in fat, sodium, and cholesterol will improve Hawaiians' health.

  Tragedy: Following a typical local diet heavy with fatty meats and cholesterol will lead to obesity, heart disease, diabetes, and cancer among Hawaiians.

© 1998 SSEC

Curriculum Activities

Our original plan called for curricular activities in four major phases: collecting recipes, nutritional value investigation, food sampling, and school/home survey. Because of a time conflict, we did not start the unit as early as we had planned and therefore did not complete all of the activities; however, we present them all here to give a complete view of the unit as we will implement it in the future.

We were quite successful in getting community resources to come to the class to talk with students. We found that such visits could not always be scheduled to fall at the most advantageous time for curricular purposes. Thus, we describe briefly here the visits before presenting the unit activities. In October, Helen O'Connor from the Wai'anae Coast Comprehensive Health Center visited the team to discuss the effects of fast foods on Native Hawaiians' health. In February, two students conducting additional research on the Wai'anae Diet did a written interview with Governor Benjamin Cayetano, a participant in the diet, and invited him to address the team, which he did in April. Also in April, a former participant in the Wai'anae Diet spoke to the team, as did Michael Motas, a Wai'anae Diet chef. Motas prepared a low-fat (less than 10 grams) luau for the team in May. The final guest presenter was Gail Ogawa, nutritionist from St. Francis Hospital's Education Department, who spoke to the team in June.

Collecting Recipes

Goals

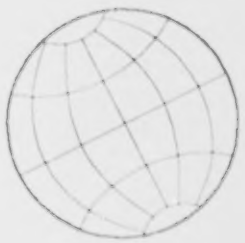
Goals of this phase of the unit were social studies goals 1, 3, and 7, math goals 1 and 2, science goals 1 and 2, and language arts goals 3 and 4 (see list of goals above).

Activities

1. Gather recipes from family members and categorize the recipes by ethnic origin. Map ethnic origin of each recipe.

2. Discuss ethnic origins and cultural influences on our diet (media, parents' upbringing, peers' preferences, etc.).

3. Organize and classify data from the recipes collected—ingredients used most frequently, types of recipes (main dish, desserts, etc.), preparation methods used, and so on. Display the data using the most appropriate means—bar, line, pie, or picto graphs.



© 1998 SSEC

4. Discuss the data generated and displayed via graphs to determine whether they can make any general statements about the diet of students' families based on this data.

5. Write papers explaining the history of the recipes they brought in. The papers are to focus on why students chose the recipes they did, who gave them the recipes or explained the recipes to them, and any family history associated with the recipes.

Nutritional Value Investigation

Goals

Goals of this phase of the unit were social studies goals 1,4, and 6, math goal 6, science goals 1-6, and language arts goals 1-4 (see list of goals above).

Activities

1. Research the four food groups and how various diets or ethnic groups use the food groups. Based on the research, write research papers as well as letters inviting nutrition-related speakers to visit campus.

2. Tour Keala Farms and an aquaculture farm. Debrief visits by discussing how farming methods are related to culture and to global concerns, such as hunger, resource allocation, and environmental quality.

3. Classify the recipes gathered by the major food groups they contain.

4. Research the nutritional content of the recipes, looking particularly for substitutes for ingredients that are unhealthy. Learn about fat and low-fat substitutes and learn to use the Fat Counter, a book that lists the fat content of foods.

5. Take part in demonstration of hidden fat. Use Fat Counter to convert serving sizes.

6. Chart and graph the nutritional value of the recipes. Analyze nutrition labels and discuss how they can be used as a source for making wise food choices.

7. Keep a food journal recording all the food eaten for three days. Classify the food eaten in that period according to food groups and calculate fat intake each day. Write a jour-

© 1998 SSEC

nal entry reflecting on what the food journal shows. Set personal goals for lowering fat intake.

8. Examine the ratio of ingredients in a given recipe to each other. Compute doubling of the recipe and halving of the recipe.

9. Create a new recipe. The new creation can be an adaptation of an existing recipe with substitutions. The nutritional value of the old and new versions should be provided.

School/Home Survey

Goals

Goals of this phase of the unit were social studies goals 1, 4, and 6, math goal 1, and science goals 1 and 2 (see list of goals above).

Activities

1. Gather data on television food commercials. Discuss what methods advertisers use to appeal to people. Create their own commercials employing some of these methods to "sell" nutritional foods.

2. Create a survey for use in gathering data on fast-food influences on their own families. Conduct the survey and analyze and discuss the data.

3. Identify and analyze food discarded in cafeteria garbage receptacles. Graph the data collected and draw conclusions (e.g., what kinds of food are most likely to be discarded).

4. Gather and compare food prices from local markets. Organize data from the price survey into logical and organized charts and graphs for display purposes. Discuss what the data show about similarities and differences in prices.

5. Write journal entries reflecting on all of the survey data gathered and discussed.

Food Sampling

Goals

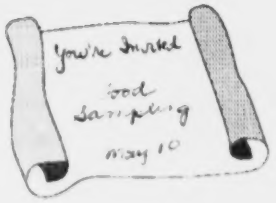
Goals of this phase of the unit were social studies goals 5 and 6, math goals 5 and 6, science goals 3-6, and language arts goals 3 and 4 (see list of goals above).

© 1998 SSEC

Activities

1. Select the recipes to be prepared for the food-sampling event, selecting both low-fat and ethnic recipes.

2. Calculate the amount of food needed to prepare for the food-sampling event. To do this, students must calculate the ratio of number of servings from a single recipe to the school population that will be sampling the food item and then multiply the recipe times the appropriate factor.



3. Brainstorm questions that could be used to evaluate the foods prepared. Use these questions to create an evaluation sheet to be completed by food samplers.

4. Examine the food purchased to determine what types of food have the greatest amount of packaging. Discuss the effects of food packaging on the environment.

5. Create and distribute invitations to food-sampling event (other students/classes in school). Use effective advertising techniques observed in the study of food advertising in creating the invitations.

6. Prepare and serve food. Collect evaluations and analyze data from food samplers. Which recipes scored highest with samplers? Why? Which recipes did samplers not care for? Why?

Service Activities

Our planned service activities revolved around having students educate others about what they had learned in studying nutrition. We planned for students to create and share, through the morning bulletin and closed-circuit television, food preparation techniques and recipes. We also planned for students to gather personal data on height and weight and compare this data with national norms. All of the information students gathered was to be synthesized into a brochure that would include recipes, nutritional information, height/weight recommendations, and the like. Students would create the brochures, investigate the costs of printing and paper for production of the brochures, and make plans for their dissemination. Dissemination could occur through various means, including booths at local festivals, distribution and grocery stores, and so on.

Unfortunately, we were able to implement only a small portion of the planned service activities, providing handouts to students' families. We plan to implement other service ac-

© 1998 SSEC

tivities in the future and have made contacts with organizers of local festivals as a first step in planning.

Evaluation Strategies

Student learning was assessed through the ongoing evaluation of assignments, including written work, discussion, food diaries, hands-on work with food labels and fat counting, and participation in the food-sampling activity. Because the service component of the project was limited this year, we did not use any special assessment strategies to determine its impact on students.

Reflections on the Project

This unit encompassed everyone's interest—from infant dietary concerns to the elderly. Food is one topic for which high interest is naturally there. We could touch upon every student's nutritional background.

Our project had a number of strong points: students gained the tools needed to make wise choices about nutrition, students' families showed interest in the unit, we functioned well as a team and learned along with the students, and we located abundant community resources on the topic, which is pertinent to Wai'anae. However, we got started later than planned and therefore did not finish the unit. This kept us from reaching beyond students' families to the broader community. If we start in September next year and carry the unit throughout the year, teaching one lesson per content area per month, we will be able to have greater impact, especially in terms of the service projects.

Another challenge we faced was that the time we had available and the time community organizations had to plan and to work together was difficult to match. We need to reach out to other resources that might have more flexibility in terms of time.

Time in general was a challenge, and we somewhat stressed ourselves out. Fortunately, a grant was available and we jumped at the opportunity to hold a special summer session focused on our program. We are excited about the potential of this session, both in itself and as a way of working out lessons that we will be able to use in subsequent years.

© 1998 SSEC

Earth Inc.

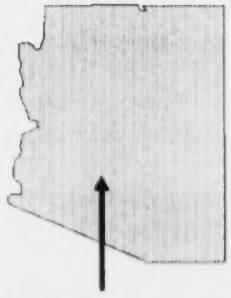
Site: Glendale, Arizona

Instructional Team: Debra Bjorna, Andrea Geith, Cassie Turley, Howard Waltz

Contact: Debra Bjorna, Desert Sky Middle School, 5130 West Grovers Avenue, Glendale, AZ 85308; 602/866-5825; dbbjorna@amug.org

Community Profile

Desert Sky Middle School is located in Glendale, Arizona, a northwest suburb of the city of Phoenix. Glendale is located in the Sonoran Desert, which has an annual rainfall of seven inches. The school has a population of approximately 1100 seventh- and eighth-grade students. The school has implemented the middle school philosophy of education. Each student is a member of an integrated team that provides science, social studies, mathematics, and language arts instruction to its students. Each team is composed of approximately 120 to 130 heterogeneously mixed students.



Unit Background

Earth Inc. is an interdisciplinary teaching unit based on an imaginary company seeking a new advertising agency to handle its publicity. In the scenario, the company has discontinued its relationship with the old agency because people in Arizona continue to endanger the water supply and indigenous species in the state of Arizona. In the simulation, students compete for the Earth Inc. advertising contract. Each cooperative team of students designs and presents an advertising campaign consisting of a TV, radio, and print public service announcement. Students also conduct service projects in their community using either water conservation or threatened wildlife as subject matter.

The unit is designed to be conducted by one team of approximately 120 to 130 students, although the unit could easily be adapted to include an entire grade level or school, each focusing on a local environmental issue or problem. The issues of water conservation and threatened wildlife are major problems that face the Sonoran Desert environment as more and more people settle in the "valley of the sun."

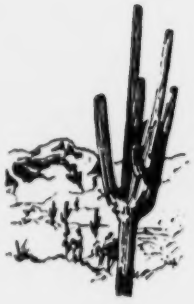
Students participating in Earth Inc. are expected to develop a greater sense of the true fragile intricacies of the

© 1998 SSEC

earth and its systems. They will understand the impact humans have had and will continue to have on the earth. Finally, and most vitally, students will develop a sense that they can make a difference in the quality of their lives if they take action based on informed decision-making.

Unit Topic

The overall topic of the unit was environmental ecology, specifically desert water management and factors threatening Arizona desert wildlife. More specific topics in the various disciplines are listed below.



Science

Water cycle	Habitat/communities/biomes
Conservation	Endangered animal species
Management	Predator/prey relationships
Recycle	Indigenous species
Pollution	Classification of threatened wildlife
Conservation	Governmental protection and actions
Food cycle	Chemistry of Water

Social Studies

Arizona history
Arizona geography
Habitat/biomes
Reclamation
Ground water
Population growth
Governmental impact
Economic impact
Agricultural land use

Mathematics

Patterns and relationships
Problem solving
Data analysis and probability
Measurement
Reasoning
Numbers

Language Arts

Business letter writing
Ad campaign development
Propaganda techniques
Script writing
Research analysis and interpretation
Literature studies
Oral presentation skills

Academic Goals

Science

The following goals are included in the state of Arizona Essential Skills for Science:

© 1998 SSEC

- Develop positive attitudes and excitement toward learning science and the confidence in one's ability to do and understand science.
- Understand the nature of science and technology.
- Acquire and apply appropriate scientific knowledge to interpret the natural world.
- Develop integrated skills through science experiences.
- Use experiences with science and technology in personal decision-making.
- Increase understanding of the limits, possibilities, and interrelationships among science, technology, society, and the environment.
- Acquire skills for learning through concrete and manipulative use of instruments and materials of science.

Social Studies

The following goals are included in the state of Arizona Essential Skills for Social Studies:

- Describe and compare patterns of physical geography that pertain to different regions of the world.
- Explain how the geographical features of a country or region influence its settlement and its utilization of natural resources.
- Identify and describe basic economic concepts that influence the environment.
- Describe laws and policies that are adapted to meet changing needs of the society.
- Research and identify issues that require social actions and take part in the solutions.
- Demonstrate skills of persuasion and debate by working toward reasoned solutions regarding a controversial issue.

Math

The following goals are included in the state of Arizona Essential Skills in Mathematics:

- Measurement: experience informal comparisons; have opportunities to estimate measures of length, weight,

© 1998 SSEC

mass, volume, time, etc.; apply measurement skills in problem-solving situations.

- Problem-Solving: apply, reason, experience, and demonstrate concepts and skills in the areas of number sense, measurement, geometry, and patterns.
- Symbolic Representations: relate personal experiences to symbolic representations.
- Data Analysis and Probability: organize, collect, and interpret information and data; construct lists, graphs, and tables; logically reason and interpret data and form conclusions.
- Algebra: explore and understand mathematical relationships using variables.
- Logic and Reasoning: develop reasoning, logic, and higher level thinking skills through interaction and communication regarding mathematical ideas.

Language Arts

The following goals are included in the state of Arizona Essential Skills for Language Arts:

- Read, analyze, and demonstrate comprehension of informational resources.
- Listen and demonstrate comprehension of ideas from oral presentations/discussions.
- Write a persuasive expository paper using writing process skills.
- Prepare and present an effective oral presentation.

Service Goals

- Develop positive attitudes and habits toward water use in a desert climate.
- Appreciate the impact of individual efforts.
- Learn to work effectively with others.
- Identify and work with professionals in the community who have relevant expertise.
- Promote community awareness of local issues and potential solutions.

© 1998 SSEC

- Develop self-esteem through informed decision-making
- Develop an attitude of civic involvement regarding local issues and solutions.
- Apply academic and cognitive content and skills in authentic environments.

Curriculum Activities

The lessons in the unit were generally focused on three major areas: habitat/endangered species, the water cycle, and communication skills. Goals and activities in each area are described briefly below.

Habitat/Endangered Species

Goals

1. Explain the criteria used to determine if a species population is threatened, endangered, or extinct.
2. Identify threatened species and factors that affect their population.
3. Describe and explain the following terms: *biome, community, habitat,* and *food cycle.*
4. Explain the role predators play in a habitat.
5. Investigate and evaluate governmental regulations and actions designed to protect threatened species.
6. Identify Arizona's three geographic zones.
7. Locate Arizona's major mountain ranges, rivers, dams, and lakes.
8. Identify and describe Arizona's climate and vegetation zones.
9. Propose and communicate solutions for Arizona's endangered species problems.
10. Create, describe, extend, and analyze a wide variety of patterns in our world.
11. Use problem-solving approaches to investigate and understand mathematical content.

© 1998 SSEC

12. Develop and apply a variety of strategies to solve problems, with emphasis on multistep and nonroutine problems.

13. Verify and interpret results with respect to original problem situations.

14. Generalize solutions and strategies to new problem situations.

15. Review and apply note-taking skills.

16. Explore the role environmental issues play in literature.

17. Demonstrate attitudes about issues through reflective journal writing.

Activities

1. What Happened to the Bald Eagle? (Science and Social Studies). Study effects of pollution and habitat loss on the eagle population.

2. Guando Island (Science). Create a life form based on information about the habitat in which it lives.

3. Mapping Arizona (Social Studies). Create an Arizona map with counties, county seats, mountain ranges, rivers, dams, climate areas, and vegetation zones.

4. Rice Checkers (Math). Simulate exponential growth and discuss effects of population growth.

5. Population Growth (Social Studies). Examine population growth and its impact on water resources and endangered species. Predict future problems if growth continues. Brainstorm solutions.

6. Arizona's Issues (Social Studies). Examine environmental and economic development positions and issues in the state of Arizona.

7. Endangered Species Game (Science). Simulate the effect managed wildlife preserves have on endangered species.

8. Environmental Jeopardy (Math). Participate in Jeopardy-style game using environmentally based math questions.

9. Environmental Book Reports (Language Arts). Read and present reports to class on environmental issues covered in a

© 1998 SSEC

teacher/librarian-generated book list. Take notes from presentations for future use.

10. Reflective Journal Writing (Language Arts). Reflect on what they have read, heard, and seen in all their classes and the media about environmental issues.

Water Cycle

Goals

1. Explain the chemical makeup and properties of water.
2. Explain and describe the impact of the earth's water cycle.
3. Identify, describe, and analyze the impact of water use in the community.
4. Evaluate the impact of water management, conservation, and reclamation projects in the community.
5. Identify factors that contribute to water pollution in the community and analyze their impact on the water supply.
6. Explain the impact of population growth and agriculture on Arizona's water resources.
7. Propose and communicate solutions to Arizona's water problems.
8. Systematically collect, organize, and describe data.
9. Construct, read, and interpret tables, charts, and graphs.
10. Make inferences, predictions, and arguments based on data.
11. Demonstrate attitudes about issues through reflective journal writing.

Activities

1. Dirty Water (Science and Math). Study effects of pollution on earth's finite water supply.
2. Water Use Debate (Social Studies). Debate positions of various economic interests (agriculture, golf courses-tourism) on water use issues and water conservation.
3. Water Analysis (Math). Analyze water samples and create graphs and charts of results.

© 1998 SSEC

4. What Happened the Day the Water Stopped (Math). Simulate what it is like to live without having water delivered to your home.

5. How Water Is Used to Recycle Trash (Math). Study use of water in recycling programs.

6. Reflective Journal Writing (Language Arts). Reflect on what they have read, heard, and seen in all their classes and the media about environmental issues.

Communication Skills

Goals

1. Create an ad campaign presenting issues and solutions.

2. Identify and apply propaganda techniques to ad campaign.

3. Identify and apply script writing skills to ad campaign.

4. Use correct bibliographic format to research information.

5. Write business letters informing the public of issues and solutions related to them.

Activities

1. Propaganda. Analyze television, magazine, newspaper, and radio ads to identify propaganda techniques. Develop notebooks with examples of each kind of propaganda.

2. Public Speaking. Become familiar with persuasive words. Learn proper posture, enunciation, body language, gestures, voice quality, and eye contact.

3. Script Writing. Learn to organize, choose proper wording, and use reasoning to get a point across in the least amount of time and words. Use story boarding and dialogue with stage movements and directions. Apply persuasive techniques.

4. Business Letters. Write letters to local companies regarding the unit.

Service Activities

Student teams created an advertising campaign on water use in the desert that included brochures, posters, and public service announcements for radio and television. Student-produced products were used in the following ways:

© 1998 SSEC

1. All students in the school participated in the project by viewing and listening to the television and radio ads and reading the brochures and posters.

2. Television ads were viewed by the public at the school during special events and on local cable television.

3. Brochures were distributed through the Welcome Wagon Service provided to all new residents and home owners in the community.

4. Posters were displayed at the Phoenix International Airport for two months during the summer of 1997.

Evaluation Strategies

Several evaluation strategies were used to evaluate the effectiveness of the project. These included attitudinal/habit surveys (pre and post); advertisement rubric; team effectiveness surveys; journal reflection; and daily evaluation of class work.

Reflections on the Project

During the project, I observed changes in attitude towards water use by most of my students. Parents reported that students were reviewing household use of water and suggesting ways to reduce water use in their homes. One parent was told not to use the toilet for an hour because his daughter was testing for water leaks. The advertisements were well received by all who viewed them. I find it most rewarding to observe the changes in attitudes of students towards the fact that they, themselves, can made a difference in the fragile Earth environment.—Debra Bjorna (Science)

I think the Earth Inc. unit was a success. Students enjoyed preparing and presenting their radio and television commercials to the core team and to the school.

In math we made up the survey questions and tallied the results both before and after the public service announcements were shown to other students. The kids were really surprised to see how they impacted the decisions and attitudes of their fellow student body on the issue of conserving water.

We were excited to see how the community, students, teachers, parents, and families came together to support our efforts. We had several parents tell us how they were excited to see their student get involved in such a wonderful learning experience. Some parents even told us how their son or daughter would make sure that their siblings turned off the water

© 1998 SSEC

while brushing their teeth. I know I even found myself telling my two-year-old, who was potty training at the time, how important it was not to flush the toilet unless it was necessary.—Andrea Geith (Math)

My personal thoughts about Earth Inc. are all positive. From the social studies perspective, I feel that "Earth" accomplished its goals. We were able to study Arizona geography with a specific purpose. With "Earth" I was able to answer the often-asked question "why are we studying this?" and give answers that the students were able to see and accept. The students were also able to see that they can make a difference in their community. The team heard, on countless occasions, from parents and the community how the students' projects caused them to look at water in Arizona in a more conservative way. "Earth Inc." is an excellent way for students to take a local concern, incorporate the concern into a curriculum topic, and work on solving a problem.—Howard Waltz (Social Studies)

© 1998 SSEC

STUDENT ACTION FOR THE ENVIRONMENT (THE S.A.F.E. PROJECT)

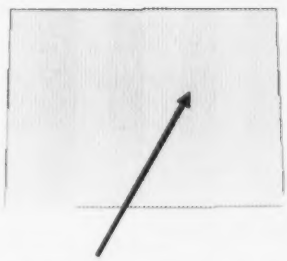
Site: Littleton, Colorado

Instructional Team: Babette Cartelli, Kiplynn Forsythe, Connie McLaughlin, Deb Wearner

Contact: Connie McLaughlin, Ken Caryl Middle School, 6509 West Ken Caryl Avenue, Littleton, CO 80123; 303/979-5150; Cmclaugh@jeffco.k12.co.us

Community Profile

Ken Caryl Middle School is located in the Jefferson County School District, the largest school district in the state of Colorado. Jefferson County Schools spread throughout the suburban and foothills region just west of Denver. Ken Caryl Middle School is located in the unincorporated southern end of the county. The student population is relatively homogeneous, racially and economically. The community is among one of the fastest growing in the state due to its location between the city of Denver and the foothills of the Rocky Mountains. The community is generally made up of well-educated, middle to upper-middle class, Caucasian, professional, two-parent families.



Littleton

Unit Background

Many people choose to live in Colorado because of the year-round outdoor activities. Recently, concern has been growing, especially along the heavily populated front range of the Rockies, that population pressures and economic expansion threaten the natural aesthetics and recreational opportunities provided by the mountain-plains environment. With this concern in mind, our interdisciplinary teaching team from Ken Caryl Middle School developed this teaching unit. The primary goals of the unit were to raise seventh-grade students' awareness of human impact on and interaction with the environment and encourage stewardship of the land and the local community. The interdisciplinary, thematic unit was designed to link the ecosystems unit taught in life science with the geography unit taught in social studies. Language arts and math supported the unit with a variety of integrated lessons and activities. In terms of the service learning component, the team developed service activities that complemented the curriculum goals and provided direct contact with local agencies concerned with various community environmental issues.

© 1998 SSEC

Unit Topic

The SAFE Project was designed to support both Jefferson County Public Schools and state of Colorado curriculum content standards. The central content focus of the unit was human/environmental impact. Community problems addressed throughout the unit included recycling, water usage, resource preservation, land stewardship, and community aesthetics. The following academic areas and major topics provided the content direction for the project.

Life Science
Renewable and nonrenewable resources
Recycling and conservation
Technological development
Ecosystems
Adaptation and change

Social Studies
Geography, location, human and physical processes, place
Human adaptation to and impact on the environment
Human activities
Human systems
Technology

Language Arts
Persuasive writing
Subject-specific vocabulary development
Opinion development and evaluation

Mathematics
Data collection, organization, description, and analysis
Inferring, deciding, and arguing from data
Evaluating statistical claims
Measuring
Rates of change

Civics
Political and personal rights
Conflict: rights and responsibilities
Self-governing behavior
Formation of public policy
Influencing public policy
Private and public character traits

Academic Goals

Our instruction is driven by district and state content standards. Following are the targeted standards for our unit.

© 1998 SSEC

Process Goals

- Understand that most things are in the process of change and that there are patterns to those changes.
- Work as a group to solve problems.
- List several alternatives and analyze the advantages and disadvantages for dealing with given situations.

Life Science

- Investigate and describe uses of renewable and nonrenewable resources.
- Identify usage of particular resources and describe ways to recycle and conserve.
- Describe ways that technologies have affected the environment and our lives.
- Use scientific information to make decisions.
- Describe the significance of plant and animal adaptations using local examples.
- Categorize populations of organisms based on their roles in an ecosystem.
- Predict how changes, including those caused by humans, in one component of an ecosystem might affect other components, either positively or negatively.

Social Studies

- Interpret and construct maps, globes, models, charts, and geographic databases.
- Analyze the factors affecting the location of human activities.
- Explain how human and physical processes shape places.
- Explain ways humans adapt to and impact the environment.
- Analyze how natural processes and human activities influence ecosystems.
- Show how the interaction of natural and human systems may shape present and future global conditions.

© 1998 SSEC

- Identify how technology affects the definition of, access to, use, and reuse of resources.
- Explain a contemporary issue using geographic knowledge, skills, and perspectives.

Language Arts

- Distinguish different purposes for writing.
- Adapt content and style of writing for audiences.
- Recognize persuasive techniques in oral messages.
- Write in a wide range of content areas, using subject-specific vocabulary accurately.
- Evaluate information and ideas to form and support a reasoned opinion.

Mathematics

- Solve problems and represent real-world situations mathematically.
- Solve problems by systematically collecting, organizing, describing, and analyzing data using surveys, tables, charts, and graphs.
- Make valid inferences, decisions, and arguments based on data analysis.
- Critically evaluate arguments that are based on statistical claims.
- Make and use direct and indirect measurements to describe and compare real world phenomena.
- Determine the degree of accuracy needed in a given situation and select appropriate tools and units of measure.
- Describe and use rates of change and other derived measures.

Civics

- Identify and distinguish among the political and personal rights held by citizens in the United States.

© 1998 SSEC

- Identify and evaluate issues involving conflicts between personal and civic rights, or personal and civic responsibilities, and propose solutions.
- Evaluate, take, and defend positions on the importance of personal and civic responsibilities to the individual and to society.
- Discuss the importance of citizens' self-governing behavior to American constitutional democracy.
- Identify means by which citizens can monitor and influence the formation and implementation of public policy.
- Practice methods of influencing public policy by participating in the politics and government of their own classrooms and schools.
- Explain the importance of political leadership and public service in communities.
- Discuss civic dispositions and/or traits of private and public character that are important to the preservation and improvement of American constitutional democracy.

Service Learning Goals

- Apply skills and information learned in class to local environmental concerns.
- Develop a sense of stewardship for the local environment.
- Observe firsthand the effects of population growth on ecosystems in the area and identify and meet needs.
- Collaborate with the community to identify and meet needs.
- Apply newly acquired skills and knowledge to real-life situations in the community.
- Develop an increased sense of self-efficacy.
- Increase level of accountability to and responsibility for the larger community and well as selves.
- Show an increased interest and involvement in school.
- Reciprocally transfer knowledge between class and service learning experiences.

© 1998 SSEC

- Develop a commitment to lifelong learning characterized by active and responsible citizenship.

Curriculum Activities

The SAFE project was designed as a true interdisciplinary teaching project, integrating science, social studies, math, and language arts. As is the case in most interdisciplinary programs, one discipline took the lead (science) and the others supported while still meeting content standards. To achieve the integration, we developed a curriculum connections chart. The chart began with a set of teaching strategies and activities for achieving the science goals of the unit. Once the science plan was developed, teachers in the other three disciplines developed strategies and activities that supported the science theme of the unit and also met their own curriculum standards and goals. In language arts and math especially, lessons not related to the unit were also taught while the unit was in progress.

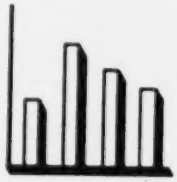
The unit was divided into five major parts: an introduction to systems, focus on plants, focus on animals, scavengers and decomposers, and environmental responsibility. Activities in and goals for each part of the unit are presented below.

Systems

Goals

1. Define and give examples of *systems.*
2. Identify the elements of an ecosystem.
3. Based on observations, describe in detail one site near the school.
4. Take a stand on an environmental issue.
5. Distinguish fact from opinion.
6. Use a grid system.

Activities



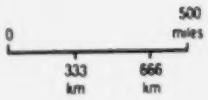
1. Introduction to Systems (All). Learn about components of a system. In social studies, look at the community as a system; in math, look at graphing as a system; and in language arts, look at language systems and the writing process.

© 1998 SSEC

2. Fact vs. Opinion (Social Studies). Use newspaper article on a current event (cyanide spill) to learn techniques for differentiating between fact and opinion.

3. Site Study (Science). Study an area near the school in detail, making observations, mapping data, evaluating the environment, and discussing what their findings show in terms of human impacts on the site.

4. Math as Measurement (Math). Estimate and measure distances; learn about scale as a means of representing distances.



5. Your Perfect World (Social Studies). Draw and list characteristics of what they believe is the perfect environment. Discuss what these characteristics show about human attitudes toward the environment.

6. Environment Book Reports (Language Arts). Read and report on books with environmental themes.

7. Ecosystems (Science and Language Arts). Read and discuss an introduction to the components of an ecosystem. Use two-column notes. Develop definitions for vocabulary terms related to ecosystems.

8. Math as a System (Math). Work with sets of numbers and order of operation as components of math as a system.

9. Take a Stand (Science and Language Arts). Read *The Lorax*, by Dr. Seuss. Discuss and/or role play the story. Take a stand on the issue presented in the story and make comparisons with real-life issues. Write a persuasive piece on an issue.

10. Math as Problem Solving (Math). Use of math skills in research, analyzing fact/opinion, analyzing persuasion or being persuasive.

Focus on Plants

Goals

1. Define *native* plant and differentiate between native and nonnative plants in Colorado.

2. Conduct an experiment that tests the effect of one abiotic factor on plant growth.

3. Graph data gathered through an experiment.

© 1998 SSEC

4. Explain experimental results and form a conclusion based on data.

5. Identify ideal growing conditions for particular plants.

6. List uses of plants and explain how plants are producers.

7. Define the five themes of geography and describe a place in terms of the five themes.

8. Find geometric shapes in nature.

9. Calculate rates of deforestation.

Activities

1. Focus on Plants: Introduction (Science and Social Studies). Observe and report on plants found in their own yards. Map the yard; create another map from house to another location (different scale).

2. Native Plants (Science). Take two-column notes from a slide show about native plants. Read and discuss a reading about what a native plant is.

3. The Five Themes of Geography (Social Studies). Read a story, "Big Old Stupid Tree," and discuss in terms of questions that help students identify and define the five themes of geography. Describe a favorite place in terms of the five themes.

4. Geometry in Nature (Math). Examine pictures of plants from a geometric perspective, identifying such features as symmetry.

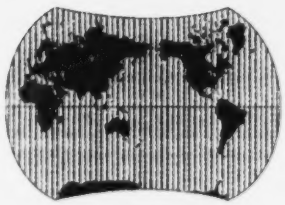
5. Grower's Alert (Science and Math). Design and conduct an experiment to test the effects of abiotic conditions on the growth of particular plants. Gather and graph data. Present data to other students and draw conclusions based on data. As a class, discuss what was learned through the experiments.

6. Taking a Trip Abroad (Social Studies). Select a location in another country and plan a trip to that country. Use five themes to analyze how this place is different from students' own community.

7. Socks to Cellophane (Science). Listen to story and identify items made from plants.

© 1998 SSEC

8. Sharing Our Global Environment (Social Studies). Analyze case studies that illustrate how a change in the environment in one place affects other places as well. Small group presentations on results of the case study analysis.



9. Are We Trading Away Our Rainforests? (Social Studies and Math). Analyze deforestation as an example of human impact on the environment. Calculate rates of deforestation and make predictions about the future.

10. Plants as Producers (Science). Read and discuss article on plants as producers.

11. Plant Cells (Science). In lab activity, examine plant cells under the microscope. Read and discuss an article on photosynthesis.

Focus on Animals

Goals

1. Describe the numbers of species on earth.
2. Explain the role of animals in the ecosystem.
3. Define and illustrate a food web.
4. Understand factors that limit the size of animal populations.
5. Define *carrying capacity*.
6. Understand that different cultures interact differently with the environment.
7. Explain poverty in terms of the distribution of resources and its effects.
8. Debate an environmental issue.
9. Describe the use of measures of central tendency.
10. Explain exponential population growth.
11. Conduct research on an animal native to this region.
12. Write a persuasive letter.

© 1998 SSEC

Activities

1. More than Mammals (Science and Math). Read about the number of species on earth and their diversity. Analyze graphs representing types of animals.

2. Australia's Twilight of the Dreamtime (Social Studies). View video and discuss how people from different cultures interact differently with the environment.

3. Descriptive Writing (Language Arts). Write accordion paragraphs about animals.

4. Animals in an Ecosystem (Science). Read and discuss article about the role of animals in an ecosystem.

5. Global Village (Science and Math). Learn about poverty in terms of distribution of resources globally. Analyze data and determine where poverty is the greatest problem. Discuss effects of poverty on people.

6. Wildlife Cards (Language Arts). Research animals and create informational cards presenting research results.

7. Who Eats What? (Science and Language Arts). Watch a video and do a reading about predators and the food web. Create food webs. Discuss the use of webs in writing.

8. Coyote Control (Science). Take part in a simulation of methods to control the coyote population. Discuss results in light of factors that limit the size of populations.

9. Rancher vs. Environmentalist (Social Studies, Math, and Language Arts). Take part in a debate on how the coyote population should be controlled. Study measurement of central tendency and find statistics that favor viewpoints of specific interest groups—ranchers, hunters, or environmentalists. Write an argument from a particular point of view.

10. Never Cry Wolf (Language Arts). Read and discuss the novel, *Never Cry Wolf*, by Farley Mowat.

11. There's a Limit (Science and Math). Read and discuss article about carrying capacity. Watch video on exponential population growth and discuss the implications.

12. Endangered Species Letter Writing (Language Arts). Write persuasive letters about endangered species and what should be done to help save them.

© 1998 SSEC

Scavengers and Decomposers

Goals

1. Describe the roles of scavengers and decomposers in the ecosystem.
2. Explain how waste is removed from water.

Activities

1. The Clean-Up Crew (Science). Read and discuss articles on scavengers and decomposers. Observe decomposition in a terrarium and draw conclusions based on observations.
2. Decomposers and Human Waste (Science and Math). Read and discuss articles on how human waste is treated. Analyze data on effects of human waste on the water system.
3. Read and analyze the short stories "Last Cover" and "Wild Duck's Nest."

Environmental Responsibility

Goals

1. Name five examples of ecosystems.
2. Identify sources of information about particular ecosystems.
3. Explain the components of an ecosystem.
4. Conduct research on an ecosystem and on an environmental problem.
5. Design a poster showing the components of an ecosystem.
6. Locate various ecosystems in North and Central America.
7. Understand that individuals have responsibility toward the earth.

Activities

1. Ecosystem Survey (Science and Language Arts). Research the ecosystem of an assigned city and an animal that lives there. Create posters and write papers presenting the results of their research.

© 1998 SSEC

2. Ecosystem Map (Science and Social Studies). Locate and map the ecosystems of the world, with particular focus on North and Central America. As a case study, examine the ecosystem of the Colorado River basin.

3. Eco-Wise Decisions (Science and Social Studies). Study policy decisions that affect the environment and reach decisions. Discuss the individual's and government's role in protecting the earth.

4. Urbanimal (All). Groups are assigned a city from a list of cities in different types of ecosystems. For that city, groups must research the ecosystem, research a native animal of the ecosystem, design urbanimals out of recyclable/biodegradable materials ideally suited to a city environment, map the city, graph annual rainfall and determine how that affects the environment in that place, represent the animal they selected in a "Council of Beings," and study the population growth of the city and its effect on habitats.

Service Activities

More than 140 seventh-grade students participated in the SAFE project. Our goal was to arrange several valuable service placements to allow for small groups and the maximization of students' experiences. In the end, eight diverse service placements were developed to support and enhance the academic goals of the SAFE unit. Students selected one of the eight service alternatives and then spent one day a week for a period of four weeks engaged in the service experience. The sites and activities were:

1. KCMS Recycling Program. Students set up and maintained a schoolwide paper recycling program. The students also studied waste and recycling in the community and nation from a historical perspective.

2. Chatfield Arboretum. Students assisted in preparing for the annul fall Pumpkin Festival by weeding the pumpkin patch, piling gourds, and creating a hay-bale maze for young children attending the festival.

3. Xeriscape Garden. Students researched, designed, built, and will maintain a xeriscape garden on the school site. Students raised a significant amount of money for the project and also solicited many donations from the community.

4. Theo Carson Nature Center. Students aided rangers in their efforts to restore wetlands and maintain a buffer

© 1998 SSEC

zone between natural and urban environments in South Platte Park.

5. Graffiti Reduction. Students worked with the school's DARE officer to paint over graffiti in several local parks in order to "take back" these areas and show their respect for and care of public property.

6. Jeffco Open Space. Students participated in a pilot project with the local land preservation agency, learning about environmental careers and efforts to balance needs of humans, animals, and plants with respect to local land use.

7. Rocky Mountain Arsenal Wildlife Refuge. Students worked with U.S. Fish and Wildlife employees to reestablish native plants in reclamation efforts at a wildlife refuge.

8. Green City Data Project. Students worked at Chatfield State Park to evaluate the success of a human-made wetlands project designed to filter pollutants from a local aerospace corporation. They also inventoried plants and animals for the rangers who manage the park.

© 1998 SSEC

Evaluation Strategies

Student growth was assessed in the following ways:

- Student service learning journals.
- Pre/post service learning questionnaires.
- Service learning site evaluations (areas evaluated included behavior, preparedness, participation, and attitude).
- Service learning evaluations completed by students, parents, teachers, and adult volunteers.
- Student-created displays of the various service learning placements, which were shown (along with a slide show) at an awards and service learning community celebration.
- "Think Globally...Act Locally" research and problem-solving project in social studies and math classes.
- Ecosystem survey and animal booklets in life science and language arts classes.

Reflections on the Project

We used several of the above assessments to evaluate the entire service project. We will use these evaluations to revise our project for next year. Some changes may be lowering the adult to student ratio to 1:5; improved training (including explicit expectations) for project leaders and parent volunteers; and providing students with a more consistent and structured journaling experience.

Overall, the success of our SAFE Project was a gratifying, positive learning experience for all involved. Students learned content in new and exciting ways, provided services to their community, developed new relationships, observed how the actions of a few can affect the efforts of many, and brought credit to their school, core teams, and age group. Conversations with students leave no doubt that the experience was positive and the effects will be long-lasting. Although it was a great deal of work, we are all excited to repeat the experience, with minor changes. One of our goals was to have a project that we could refine and repeat, and we feel that was one of our biggest successes.

© 1998 SSEC

Trash Bashers:
An Integrated Service Learning Unit

Site: Daly City, California

Contacts: Julie Brosnan, Lisa Greenhill, Sabrina Ramirez, and Cristina Robles, Thomas R. Pollicita Middle School, 550 East Market Street, Daly City, CA 94014; 415/991-1218

Community Profile

Daly City, known as the "Gateway to the Peninsula," is a densely populated urban community just south of San Francisco. Bordered by the Pacific Ocean to the west, the San Francisco Bay to the east, and the cosmopolitan city of San Francisco to the north, Daly City offers geographic and cultural diversity that adds to the area's uniqueness.

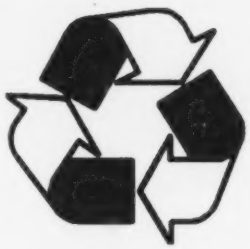
Thomas R. Pollicita Middle School is a large community of nearly 1,000 students and faculty. When combined with the neighboring elementary school, the number of students on the site exceeds 1,500. Suburban single-family homes, apartment dwellings, parkland, small businesses, and industry surround the school borders. One of the unique aspects of the community is the proximity of the school site to San Bruno Mountain State Park, where Pollicita students can observe and learn about maintaining open spaces within an urban setting.

TRP has a heterogeneous population on several levels. A great number of families live at lower socioeconomic levels, but children from middle class families also attend the school; 65 percent of the students at Pollicita receive free or reduced lunch. The ethnic portrait of the community is richly varied, with 46 percent Latino, 36 percent Filipino, 9 percent African American, 3 percent Caucasian, 3 percent Pacific Islander, 2 percent Asian, and .03 percent American Indian. The school includes honors, bilingual, Title 1, ESL, Newcomers, Resource, and regular education programs. More than one-half of the students are considered Title 1 based upon reading and math scores. One-third of the students are enrolled in either ESL or bilingual language classes. The vast majority of Pollicita's students speak a language other than English at home. This wealth of diversity is both an asset and a challenge for the faculty and staff.

© 1998 SSEC

Unit Background

For years, conservation has been a concern among industry, communities, and—especially—education. Pollicita, however, has fallen behind in its efforts to save money as well as valuable resources. The yearly concerns regarding litter, graffiti, pollution, and lack of student concern for the upkeep of the school environment provided the impetus for creating this unit. Furthermore, the team participants recognized the need for a stronger waste awareness and reduction effort at school. In response to this need, a four-week unit was developed focusing on the "3Rs" concept: Reduce, Reuse, and Recycle.



The plan was to implement the lessons in such a way that students would be able to identify the school's particular waste issues and formulate solutions of their own. We hoped to begin with action at the school site and later branch out to parental and community awareness, depending on the success experienced with the unit. Because of the composition of our team, we decided to emphasize science and language arts in the academic portion of the unit, with links to social studies and mathematics as well. A unique aspect of the unit was to include Newcomers classes, which are designed for students who have just come to this country.

Unit Topic

The core topics of the unit were the reduction, reuse, and recycling of waste products. The community problem addressed was waste and litter at Pollicita Middle School. In each of the academic areas that had major involvement in the project, several topics were developed, as shown below.

Science
Reducing, reusing, recycling
Natural resources
Air, food, and water cycles
Renewable and nonrenewable resources
Decomposition/biodegradation
Waste disposal options
Packaging options

Newcomers
Reducing, reusing, recycling
Environmental vocabulary
Garbage
Air, food, and water cycles
Composting
Packaging

Language Arts/Social Studies
Environmental vocabulary development
Business letters
Creative writing/environmental poetry
Persuasive speeches
Figurative language
Research

© 1998 SSEC

Academic Goals

Science

- Identify renewable and nonrenewable resources and their environmental and monetary costs.
- Identify examples of natural resources and how our lifestyles impact their sustainability.
- Describe the concepts and processes of reducing, recycling, and reusing resources.
- Explain specific environmental and monetary benefits of the three Rs.

Language Arts

- Increase reading comprehension through environmental literature by developing knowledge of authors' tools and devices.
- Develop a variety of writing styles.
- Develop sequencing and summarizing as writing skills.
- Produce a problem/solution business letter based on research.
- Provide opportunities to express opinions through debate and small group discussions.

Newcomers

- Learn the basic English vocabulary related to the unit.
- Become aware of the dwindling of natural and unrenewable resources.
- Recognize the need to save the earth's resources.
- Understand the role they and their families can play in saving earth's resources.
- Explain what will happen if resources are not conserved.

Service Learning Goals

Our overarching goals for the service portion of the unit were to develop a sense of pride in the school community and

© 1998 SSEC

to address specific issues of waste and litter around the school campus. More specific objectives were to have students:

- Campaign for the reduction of waste in the school.
- Create and implement a student-designed recycling program.
- Educate the parents/public about the 3Rs.
- Create products out of reused materials to be given to local communities.
- Develop a conservation ethic and a sense of pride in the community.

Curriculum Activities

The unit was divided into four sections---introduction to the unit, reduce, recycle, and reuse. We had originally planned to complete the unit in four weeks, but teaching it actually took closer to eight weeks, with two weeks devoted to each section. Below, the goals and activities for the regular classroom are presented for each week, followed by the goals and activities for the newcomers classes, to demonstrate how the unit was adapted for students who had recently arrived in the United States. The activities listed below fall primarily within language arts, science, and social studies; assistance in implementing the activities was provided by the physical education, art, and computer teachers. In addition, students did problems related to trash in math class.

Introduction to the Unit

Goals

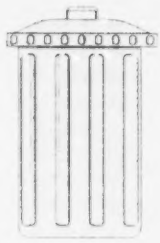
1. Develop a working vocabulary in order to talk and write about the 3Rs from scientific and creative viewpoints.
2. Improve writing mechanics.
3. Identify environmental concerns and dilemmas in a story and analyze and predict the main character's actions.
4. Analyze personal knowledge and willingness to participate in the 3Rs.
5. Distinguish between renewable/nonrenewable resources as well as biodegradable/nonbiodegradable products.
6. Identify the consumer's role in making economically and environmentally appropriate buying choices.

© 1998 SSEC

7. Demonstrate the first steps of school waste awareness.
8. Reflect on their feelings toward the environment and the planet's garbage dilemma.

Activities

1. Create "Daily Double" vocabulary charts on which they include words, definitions, synonyms, sentences, and illustrations.
2. Brainstorm descriptive adjectives to describe the environment.
3. Vocabulary quiz.
4. Copy and correct mistakes in sentences presented on an overhead (environmental content).
5. Hear a story, *Just a Dream*, by Chris Van Allsburg, and discuss the environmental issues presented.
6. Read and discuss "The History of Trash."
7. Respond to an environmental attitude checklist and then respond in writing to two self-evaluation questions.
8. Evaluate everyday objects made from wood and determine their value to society, life expectancy, plausible substitutes, and environmental impact.
9. Bury items made from any material and predict their ability to biodegrade over the course of one month.
10. Identify areas of school waste and possible ways to reduce waste.
11. Write journal entries concerning the environment (the life history of a piece of trash).



Newcomers Goals

1. Develop a working vocabulary in order to talk and write about the 3Rs.
2. Understand how garbage issues change over time, regions, and cultures.
3. Distinguish between biodegradable/nonbiodegradable products.

© 1998 SSEC

4. Demonstrate the first steps of school waste awareness.

Newcomers Activities

1. Become familiar with new vocabulary through use of realia, total physical response, use of student-made flash cards, large labels, and human spelling game.

2. Discuss what garbage is, what would be thrown away in the United States that would not be thrown away in the home country, and alternative uses of items thrown away in the United States.

3. View video, *Reduce, Reuse, Recycle.*

4. Classify objects as to what they are made of—glass, wood, plastic, paper, fiber, metal.

5. Create privacy dividers that have collages that depict garbage/trash on one half and a clean/beautiful setting on the other.

Reduce

Goals

1. Develop persuasive writing skills by using "take action" verbs with -ate suffix.

2. Use subordinate conjunctions in environment-related sentences.

3. Identify main idea and summary in reading passages.

4. Reflect on how feelings about the environment are changing as they learn more about 3Rs content.

5. Improve written and spoken communication skills with the public.

6. Understand the benefits of composting.

7. Develop an awareness of the packaging of products and how to make environmentally friendly choices.

8. Analyze personal waste habits and identify areas of needed improvement.

Activities

1. Create "Daily Double" vocabulary charts.

© 1998 SSEC

2. Vocabulary quizzes.

3. Identify subordinate conjunctions in teacher-provided examples and generate examples with teacher guidance (environmental content).

4. Complete sentence stems with a variety of subordinate clauses (environmental content).

5. Read "My 20 Foot Swath" by Kenneth Lundberg and, working in small groups, summarize each paragraph in a concise sentence using a subordinate clause.

6. Experience worms and their castings hands-on and witness the conversion of food to fertilizer.

7. Read excerpts from *James and the Giant Peach*, by Roald Dahl, and write poems or paragraphs from the perspective of the worm.

8. Compare a variety of packaged products, each containing the same amount of content but varying in types and sizes of packaging. Identify necessary and unnecessary packaging and suggest alternative methods for certain products. Compare packaging of Oreos to discover the cost of individual packaging.

9. Read waste dilemma cards and respond according to their own habits. After a class discussion, groups devise realistic solutions to improve their habits.

10. Write journal entries regarding the environment.

11. Write business letters to local environmental agencies inviting them to the "Trash Bash."

12. Write and present persuasive speeches urging school administrators to adopt their student-created schoolwide recycling program.

13. Watch and discuss contents of three videos—*Garbage Tale*, *Garbage: The Movie*, and *Reducing, Reusing, and Recycling: Environmental Concerns*.

Newcomers Goals

1. Understand the benefits of composting.

2. Be aware of product packaging.

3. Be aware of biodegradable and nonbiodegradable packaging.

© 1998 SSEC

4. Implement a reasonable plan to reduce the amount of trash produced.

5. Analyze personal waste habits and identify areas of needed improvement.

Newcomers Activities

1. Continue vocabulary development activities.

2. Work with worm bin to gain understanding of how waste is reduced through composting.

3. Examine and discuss packaging, looking at such issues as how different items are packaged, how the packaging for a single unit differs from packing for several units, etc.

4. Bring in packaging from home. Analyze how reducing packaging would be beneficial both at home and at the point where trash is disposed of (landfill).

5. Create musical instruments from something that was to be thrown away. Use instruments to create music.

6. Create a waste reduction list. Classify list by possible recycling, reducing, reusing solutions.

Recycle

Goals

1. Develop vocabulary.

2. Increase concise writing skills using subordinate conjunctions.

3. Identify with a character in a story and create a symbol that represents the character's personality or purpose in the story.

4. Increase reading comprehension through reciprocal teaching techniques.

5. Write persuasive letters to promote family participation in "Trash Bash."

6. Recognize the value of reusing trash for artistic purposes.

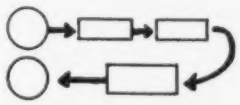
7. Demonstrate understanding of the pros and cons of plastics and synthetic materials.

© 1998 SSEC

8. Prepare realistic solutions to the school's waste problems via a 3Rs campaign.

Activities

1. Create a "Daily Double" vocabulary chart.
2. Vocabulary quiz.
3. Complete subordinate conjunction exercise sheets.
4. Listen to *The Lorax*, by Dr. Seuss, and create a "Select-a-Symbol" art project for a class presentation.
5. Read two short stories— "Traffic" by William Sleator and "The Boy Who Loved to Swim" by Jean Craighead George— and complete a "Reciprocal Reading" chart for each story.
6. Create a "Step Book" based on one of the unit's short stories.
7. Given educational resources, categorize plastic products according to their recycling number code and list the types of products generated from each.
8. Listen to community guest speakers discussing recycling in Daly City.
9. Create brochures addressing reduction needs of the school and district.



10. Establish guidelines for classroom recycling, creating flowcharts to illustrate the logistics of recycling bin pickup and oral campaigns to promote the proper use of the program.
11. Write personal invitations to their families to attend the "Trash Bash," using facts they have learned in the unit, their opinions, and their reflections. Reuse colorful magazines to make their own envelopes.
12. Glue color-coordinated trash onto giant cardboard letters that spell out the 3Rs and make posters for each of the "Trash Bash" exhibits.
13. View and discuss "The Lorax" on video.
14. Play "3Rs Jeopardy."

© 1998 SSEC

Newcomers Goals

1. Identify items that can be recycled.
2. Educate families on recycling alternatives.
3. Describe the Daly City recycling program.
4. Prepare realistic solutions to the school's waste problems via a 3Rs campaign.

Newcomers Activities

1. Continue vocabulary development activities.
2. Identify items that can be recycled (plastic bags, bottles, aluminum cans, paper) and learn how they can be recycled.
3. Create "Refrigerator Reminders" to help educate families about recycling. Content includes recycling cycle (not regular trash pick-up day), do's and don'ts, how to recycle oil, etc.
4. Learn about Daly City's recycling programs—differed colored bins and their uses, oil recycling program.
5. Participate in activities preparing for "Trash Bash."
6. Watch Bill Nye, the Science Guy videos on garbage and recycling.
7. Create books on recycling for elementary students.

Reuse

Goals

1. Demonstrate understanding of subordinate conjunctions.
2. Continue improving reading comprehension.
3. Examine author's purpose and interpret environmental poems.
4. Demonstrate how everyday waste materials can be made into new products.
5. Convert a small design to a large mural via scaling techniques.

© 1998 SSEC

6. Analyze and chart how various products biodegrade.

7. Synthesize knowledge learned and reflect on action and thoughts about the environment before, during, and after completion of the unit.

Activities

1. Subordinate conjunctions test.

2. Read two short stories—"Elliot's House" by Lois Lowry and "The Earth Game" by Pam Conrad—and fill out reciprocal reading charts for each story.

3. Read selected environmental poems and discuss poetic elements and different interpretations.

4. Make a variety of products (handmade paper, jewelry, sculpture, toys, etc.) out of used materials.

5. Create a mural on a piece of graph paper and then transfer a particular part of the mural onto cloth. The pieces are put together to convert the original design to the larger scale.

6. Dig up buried items, analyze and score the items according to the level of biodegradation, and chart the results. Draw conclusion based on the data.

7. Write journal entries.

8. Design, organize, and create comprehensive "Environmental Star Portfolio" of their best work from the unit.

9. Complete puzzle, word searches, and "Landfill Bingo."

Newcomers Goals

1. Demonstrate how everyday waste materials can be made into new products.

2. Make usable products from waste materials found at home.

Newcomers Activities

1. Continue vocabulary development activities.

2. Complete projects begun in early sections of unit.

3. Find ways to use products and packaging that would be thrown away otherwise.

© 1998 SSEC

4. Design and make a musical instrument from waste products found in the home.

5. Design and make an art project from waste products found in the home.

6. Watch videos on the water cycle and on maskmaking with paper.

Service Activities

Students at Pollicita participated in three service activities. The first was totally student initiated and involved establishing a paper recycling program for the school. Students planned the program, set it up, and convinced other students, teachers, and the school administration to take part. The recycling program continued throughout the school year and, we hope, will be a permanent feature of the school.

The second service activity was creating brochures to educate others, including students at the elementary school that shares Pollicita's campus. The computer teacher was instrumental in helping students create the brochures (see samples at right).

The third service activity was the conduct of a "Trash Bash," a culminating event to educate the school and the com-

© 1998 SSEC

munity about the 3Rs. Fairly early in the unit, interested students were invited to come to after-school meetings to plan the event. In class, students wrote business letters inviting representatives of community organizations to exhibit at the "Bash." They also prepared materials to display and distribute themselves, including a wide variety of items made from reused materials (e.g., home-made musical instruments, quilts, decorative masks). At the "Trash Bash," there were more than a dozen booths, some led by students, others by community environmental agencies.

Evaluation Strategies

We used a number of approaches to assessing student learning. We administered a pre/post survey to look at the effect of the unit on student attitudes towards learning and the community. We also gave quizzes, evaluated group work, had students complete a writing portfolio, and assessed various student products (business letters), speeches, discussions, and participation in the service project. We developed rubrics and checklists for use with a number of the assignments.

The portfolio, which we called the "Environmental Star Portfolio," was both an assessment and reflection tool. Students were to include various vocabulary and writing exercises and four journal entries in their portfolios. The prompts for the journal entries were designed to promote reflection on and use of what students had learned:

© 1998 SSEC

1. Do you think the future of our community will be more like Walter's first dream or his second dream? Explain why. Then describe the necessary actions our society must take in order to have a cleaner future.

2. Pretend you are a piece of trash (e.g., a gum wrapper, an old pencil, an empty bottle) and describe your life from beginning to end (use first person). What do you look like, feel like, and smell like? Where do you end up at the end of your life? Does your life come to an end?

3. How do you feel about our school environment? What has this unit made you realize about our campus?

4. Describe how you would create, organize, and implement a school-wide recycling program. Be very specific about who would do the recycling, where we'd store the bins, how we'd pick up school waste, and how often we'd recycle.

5. Reflect on what we've been studying during the past six weeks:

   a. What did you used to do or think about the environment before this unit?

   b. How have your actions and thoughts about the environment changed?

   c. What could you still do in your daily habits to improve on living by the 3Rs?

6. Let's Pretend: Because the planet Earth is no longer inhabitable, you've moved to the planet Mars, where there is only red dry dirt and rocks (but no toxic pollution like there is now on Earth). As you're sitting on Mars, looking fondly at Earth in the sky, you begin to recall all the wonderful sights Mother Nature had created on Earth. Write a letter to Earth (or a poem based on the poem "Dear Earth") and describe what beautiful things you miss and how you feel about what has happened.

The students' responses to these questions revealed much about how the unit affected them and what they learned. Two samples are provided on the next page.

Reflections on the Unit

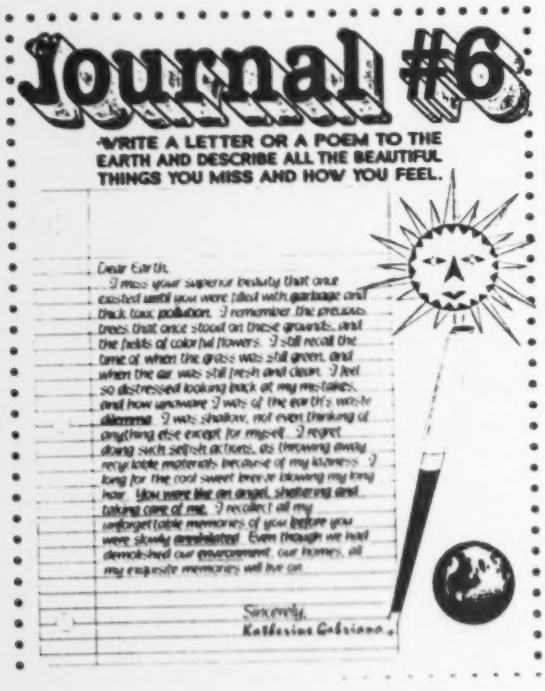
The project required a serious and definite time investment, but we saw growth (both affective and cognitive) that made it all worthwhile. We really felt a team spirit among students; they plunged into the curriculum. Of course, some kids

© 1998 SSEC

"latched on" to the ideas more than others. The natural "leaders" really shone during this unit. By the end, however, everyone wanted to be involved. In response to a class evaluation survey at the end of the year, many students expressed that the service learning environmental unit was their favorite. All of us enjoyed seeing our efforts and the kids' enthusiasm for this unit amount to a transformation in environmental attitudes and a physical transformation on the school's campus.

Because our social studies teacher did not attend the institute, we had not counted on social studies to be a major unit. However, we were able to incorporate social studies much more thoroughly than we expected because our social studies teacher was supportive.

We did suffer some burnout from months of planning and experienced some frustration in trying to get media support and coverage—it was difficult to impossible to do. We do hope the effort we put into doing the project and making contacts will make the project much easier the next time and also result in increased community contacts. We do feel the project strengthened the school community.



Journal #6

WRITE A LETTER OR A POEM TO THE EARTH AND DESCRIBE ALL THE BEAUTIFUL THINGS YOU MISS AND HOW YOU FEEL.

Dear Earth,

I miss your supreme beauty that once existed until you were filled with garbage and thick toxic pollution. I remember the precious trees that once stood on these grounds, and the fields of colorful flowers. I still recall the time of when the grass was still green, and when the air was still fresh and clean. I feel so distressed looking back at my mistakes, and how unaware I was of the earth's vanishe dilemma. I was shallow, not even thinking of anything else except for myself. I regret doing such selfish actions, as throwing away recyclable materials because of my laziness. I long for the cool sweet breeze blowing my long hair. You were like an angel, sheltering and taking care of me. I recollect all my unforget table memories of you before you were slowly annihilated. Even though we had demolished our environment, our homes, all my exquisite memories will live on.

Sincerely,
Katherine Gabriano

Journal #2

What would your life be like as a piece of trash?

I am a crushed, green and dirty old soda can that was thrown into the garbage on the street. I will be picked up tomorrow and will be heading towards the landfill. Somehow I was accidentally placed into the garbage can instead of a recycling bin is just sitting next to the garbage can. I feel like an out cast because I am the only one there who doesn't belong to this container. All through this day I have been feeling empty, cold, unhappy, and mad. Mad because I knkow I can be reused, but instead will be phased out with a shorter life span as long as a common house fly. Now I have this difficult dilemma of getting out. I wish that I could be recycled into something new again.

good details

© 1998 SSEC

Where's Waldport?

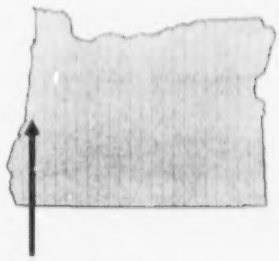
Site: Waldport, Oregon

Instructional Team: Bob Briggs, Tod Graham, Janeen Kelly, Debbie Kilduff

Contact: Janeen Kelly, Waldport Middle School, Box 839, Waldport, OR 97394; 541-563-3235

Community Profile

A small community located on the central coast of Oregon, Waldport is known for its beautiful ocean beaches, mild climate, and abundant wildlife. Tourism is rapidly becoming the major industry in the community. Approximately 1600 permanent residents live in the one-stoplight town. Historically, the major industries in the Waldport region were commercial fishing and logging. Both have declined as a result of strong environmental concerns.



Waldport

As the economic base in Waldport has begun to change, so too have the demographics. With an emphasis on tourism, many families with small children and numerous retirees have moved into the area to open small businesses. As a result of its tourist marketing plan, Waldport has attracted more visitors. Although many just pass through, some return to become full-time residents.

Unit Background

It is almost always true that the best service learning programs are those in which the service component meets real and pressing community needs. In Waldport, the instructional team and students clearly perceived a need to help visitors better find their way around the sights, shops, and recreational facilities of Waldport. Working closely with community leaders and local shopowners, students developed and provided a series of free informational brochures for new residents and visitors to Waldport. The information brochures described the environment, local services and businesses, and recreational opportunities in and around Waldport. The service project enhances an integrated unit at the sixth-grade level. Centered around geography, the unit integrates art and the core subject areas of science, math, and language arts with geography.

© 1998 SSEC

Unit Topics

The unit topic was selected to meet a real need in the community of Waldport and to teach the core academic content areas required of sixth-grade students at Waldport Middle School. As is true of most interdisciplinary teaching units, one discipline or subject area anchored the unit. In the case of "Where's Waldport?" geography was the central content area. Science, language arts/communications, math, and art were also integrated into the unit. Within the unit, each content area was supported with a clear set of instructional goals and activities.

Specific topics explored during the unit include the following:

Social Studies
Waldport and the world
Mapping and surveying
Geography - the five themes
Local history

Science
Ecosystems
Weather
Equilibrium
Cycles
Classification

Math
Economics
Survey results
Measurement
Graphing - charts
Problem solving

Art
Page layout
Project presentation skills
Computer graphics
Sketching/drawing

Language Arts/Communications
Letter writing & e-mail
Reading
Journal keeping
Vocabulary development
Writing - directions and descriptions
Public speaking
Debate skills
Interview - telephone skills
Note taking
Team building
Media - advertising

Academic Goals

Social Studies

- Identify, define, and apply the five themes of geography.

© 1998 SSEC

- Describe where people, places, and features are located on the earth's surface.
- Understand the physical and human characteristics of place.
- Understand the distribution and migration of human populations, ideas, and products.
- Understand and describe what makes up a region and how it changes.

Language Arts/Communication

- Demonstrate literal, inferential, and evaluative comprehension of print material.
- Use text features to assist comprehension (e.g., subheadings, italics, and text structures).
- Comprehend written text by making connections to experiences, other texts, and issues in the community and the world at large.
- Demonstrate control of ideas and content, organization, sentence fluency.
- Use correct conventions of spelling, grammar, sentence construction, paragraph structure, punctuation, and capitalization.
- Identify and apply persuasion techniques.
- Convey a clear, focused, well-organized idea or message with relevant supporting details appropriate to the audience.
- Use effective formal speaking skills (e.g., eye contact, enunciation, rate, volume, vocal energy, non-verbal skills).
- Identification and application of appropriate vocabulary.

Science

- Understand the behavior of organisms (hormones, nervous system, evolution).
- Understand the interdependence of organisms (flow of energy, cooperation and competition, environmental constraints).

© 1998 SSEC

- Understand and use unifying concepts to explain observations and phenomena (cycle, change, equilibrium, model, order).
- Understand energy and geochemical cycles in the earth system (sun, gravitational energy, weather and climate).
- Understand and use unifying processes (observe, hypothesize, measure, and classify) in scientific investigation.

Math

- Understand and apply distance measurements.
- Construct and draw inferences from charts, tables, and graphs that summarize data.
- Test hypotheses using appropriate statistics.
- Communicate solutions in an easily understood manner.
- Interpret a problem situation, including selecting information to solve the problem.
- Develop and apply a problem solving strategy.
- Solve a problem and verify the solution.
- Review solutions, including alternate applications or generalizations.

Art

- Describe and interpret the use of literary elements (form, style, language).
- Describe and interpret the use of design elements (line, texture, color, form, movement, space) and organizational principles (repetition, balance, emphasis, contrast, unity) in visual and performing arts.
- Analyze the potential for and limitations of art disciplines and art forms to communicate ideas, messages, and themes, within their cultural and historical contexts.
- Analyze and evaluate aesthetic principles.
- Analyze and apply processes of critical analysis.

© 1998 SSEC

Service Learning Goals

- Apply classroom learning of the five themes of geography as a lens from which to formulate a plan to help others understand the geographical uniqueness of the community of Waldport.
- Apply classroom learning and research as a source of information about the history, environment, local services, and recreational opportunities in the community of Waldport.
- Inform visitors and new residents about the environment, service, and recreational opportunities in and around Waldport.
- Develop ongoing relationships between the school and local businesses.
- Work with agencies and individuals in the community to meet a real community need.

Instructional Activities

The unit was organized into three parts—an introduction to the five themes of geography in social studies, with a simultaneous look at ecosystems in science; an introduction to the skills needed to gather information and create brochures in language arts; and a local community study. Goals and activities in each section are described briefly below.

Five Themes of Geography/Ecosystems

Goals

1. Define the five themes of geography and explain their significance to geographic study.
2. Define basic geographic terms, including terms related to landforms.
3. Identify physical and human characteristics that distinguish places and define regions.
4. Recognize that environmental problems in one area can influence the environment in other places.
5. Understand how movement of people and ideas has occurred throughout history.
6. Understand the behavior and interdependence of organisms.

© 1998 SSEC

7. Explain and use the unifying concepts of cycle, change, equilibrium, model, and order.

8. Describe energy and geochemical cycles in the earth system.

9. Use the scientific method in conducting an investigation.

Activities

1. World Geography Review. Create maps of the world, label place names on the map, and place Waldport on the map

2. Introduction to the Five Themes of Geography. Read about the five themes of geography (location, place, relationships within places, movement, and regions); hear a story and identify how the five themes are represented in the story.

3. From the Classroom to the World. Review cardinal and intermediate directions and use them to describe relative locations of objects in the classroom and on maps.

4. Identifying "Mystery" Places. Classify characteristics of places according to category (climate, topography, etc.) and identify places that match sets of characteristics.

5. Landforms and Geographic Terms. Study and review types of landforms by creating a glossary of geography terms.

6. Sharing Our Global Environment. Analyze case studies of environmental problems that begin in one place but influence many others.

7. Movement. Analyze case studies showing how movements of people and ideas have taken place throughout history.

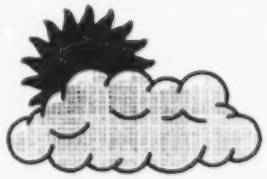
8. Deserts, Mountains, Forests, Grasslands. Research U.S. and world regions and compare these regions based on phsyical characteristics.

9. Sun Shadows. Explore seasons, climate, and graphing.

10. Weather or Not. Chart rainfall, temperature, clouds, and ocean currents.

11. Moon/Tides. Explore orbital, rotational, and gravitational forces.

12. Ecosystems. Explore food webs, nutrient cycle, and gas cycle.



© 1998 SSEC

Information Gathering/Communication Skills

Goals

1. Identify and apply persuasion techniques.
2. Convey a clear, focused, well-organized idea or message.
3. Use effective formal speaking skills.
4. Use effective interviewing skills.
5. Identify and apply appropriate vocabulary.
6. Develop and use skills for working in groups.

Activities

1. Brochure Analysis. Analyze a collection of marketing brochures and use scoring guide to evaluate content and style of brochures. Develop criteria for effective brochures.
2. Persuasive Writing. Develop community partnership letters.
3. Vocabulary Building. Complete exercises to build vocabulary relevant to brochure project.
4. Power Team Building. Explore tips for effective cooperative learning.
5. Power Note Taking. Learn and practice tips for taking clear and concise interview notes.
6. Power Interviews. Learn and practice tips for making the most of personal interviews.
7. Power Telephoning. Learn strategies for conducting effective conversations and interviews.
8. Power Speeches and Debates. Learn and use effective speech and debate skills and strategies.

Community Study

Goals

1. Gather and interpret data about their own community.
2. Identify how the five themes of geography can help them understand their own community.

© 1998 SSEC

3. Understand how changes in the community affect the environment.

Activities

1. Waldport's Five Themes. Define and identify examples of the five themes of geography in and around Waldport.

2. Community Scavenger Hunt. Look for items within community as a means of becoming familiar with and growing to appreciate the community.

3. Local History Reading. Read and discuss selections on local history.

4. Community Site Study. Observe organisms, resources, and food webs in the community. Grade percents of hiking trails, trail paces, and so on. Conduct surveys and interviews to gather more data about recreational opportunities, businesses, etc. Analyze and interpret data gathered, creating charts and graphs to display the information.

5. Environmental Impact Statement. Study impacts of increased land and resource use. Interpret data collected in site study in creating an environmental impact statement.

Service Activities

With an understanding of Waldport as a location, place, and region, and understanding the geographic relationships within Waldport as well as the causes and consequences of movement in the area, students worked with community members and organizations to create a series of community information brochures. Students interviewed area business owners and agency representatives and wrote, published, and distributed brochures containing the information gathered. Beginning in the spring of 1997, the brochures were made available throughout the community to residents and tourists. One of the brochures, *Oregon Coast: South Lincoln County*, contained a map of the region and "pull-out" sections on "Things To Do and See in Waldport," "Bay and Estuary," "Forest, Oceans, and Beaches." "Rivers," and "Weather and Climate." Another section of the same brochure provided information on day use parks, service organizations, and churches and schools. A third section outlined a short history and description of the economies of the four small towns that make up the region.

Several other brochures were published and distributed: *Recreational Activities of South Lincoln County*; *Shopping in South Lincoln County*; *Lodging*; *Service and Organizations*;

© 1998 SSEC

and *Restaurants and Entertainment*. All business-related brochures included local business profiles.

Evaluation Strategies

The project was evaluated in three ways:

- The completion of the information brochures as related to academic goals.
- Reflections from the community on how well the students worked to collect and produce the brochures.
- Student reflection journals based on prompts related to the service project.

Reflections on the Project

As a form of evaluation, community members were asked to reflect on how well students worked and interacted with others in the design and preparation of the information brochures. Following the implementation of the project, one community member wrote the following: "Cindy was a pleasure to work with. What a great opportunity to learn about our community and how a business functions. Cindy made appointments with me before she visited. She was always on time and prepared with many questions. She carried herself in a professional manner. I appreciate the opportunity to help our community and will be happy to help in the future."

Another community member provided the following: "Thank you for allowing our company to participate in your service learning project. We had the pleasure of being interviewed by a young man by the name of James. He presented himself very well, he seemed very confident of his material. We were very impressed with his hand shake, eye contact, and politeness. We hope that you continue this worthwhile project. This is a great way to bridge the gap between school and community. If James is an example of what the public schools are doing today, especially Waldport Middle School, then you should be proud."

© 1998 SSEC

Chapter 3

Linking Language Arts with Service

Following are brief ideas for developing language arts lessons to support integrated service learning units. They are intended to serve as springboards for your own ideas.

Biographies

A unit on biographies could easily be linked to an integrated service learning unit. Students could read biographies of activists, responding to the biographies as you would have them do to any book of the genre, but also focusing on what motivates people to become activists, how becoming an activist affects people (both positively and negatively), and the factors that allow an activist to effect change.

To develop student interest in the biographies, select several activists on whom young adult biographies are available. For each person selected, make a simple wire-hanger mobile. You might include provocative quotes from the person, a picture of the person, items associated with the person (e.g., a Sierra Club brochure for environmentalist John Muir), and other such materials; do not include anything that shows the person's name. If possible, do not mention the mobiles until students have inspected and asked about them. Let students speculate about the person represented by each mobile. Introduce the biographies available for student reading by matching them with the appropriate mobiles.

Another strategy for introducing biographies is to give a brief description of the subject. Before students read the book, ask them to write questions about the subject they would like to have answered. They should look for answers to the questions as they read. After they have read the book, they should develop a second list of questions; this set should be framed as interview questions students would ask if given an opportunity to talk to the subject of the biography. Some questions should ask for additional information about the subject's life, while others should elicit opinions and feelings. If several students have read biographies of the same person, you may

© 1998 SSEC

have them conduct mock interviews, answering questions as they think the subject might.

A useful follow-up activity when reading biographies of activists is to ask students to identify the most important achievement of the person they read about. Then encourage them to write stories describing how the world today might be different if the person had not been alive to make that achievement or had chosen not to work for change.

Another option is to have students focus on the work done by subjects of the biographies they have read. What qualifications, skills, or characteristics does someone need to do each job successfully? Be sure students look beyond the obvious; for example, Rachel Carson needed knowledge of biology and research skills to write her ground-breaking book *Silent Spring*, but she also needed courage and the ability to stand up to intense criticism. Using the list of qualifications they develop, students can write job descriptions for the position of "activist" or "worker for change."

Having students in the class read biographies of several different activists opens up a number of follow-up options. For example, the class as a whole could create an award they might present to an activist. Students who have read a biography of the same person could then work together to write a speech nominating the subject of their book for the class award. Students should then present the speeches and the class could vote on who should receive the award.

Students could also create a talking timeline about the issue on which their activists worked. Each student should write a one-minute speech on the subject of the biography read, focusing on the problems the person addressed and what they accomplished. The speeches should be written in the first person. Students should then arrange themselves in chronological order and present their speeches, creating a talking timeline.

Some full-length biographies and collections of shorter profiles of people who have worked for change are listed below; these represent only a sampling of the many possibilities for student reading:

Cesar Chavez, Hope for the People, by David Goodman (New York: Fawcett Columbine, 1991). Bilingual (Spanish/English) biography.

Four Against the Odds: The Struggle to Save Our Environment, by Stephen Krensky (New York: Scholastic, 1993). Pro-

© 1998 SSEC

files John Muir, Rachel Carson, Lois Gibbs (Love Canal), and Chico Mendes (Amazon rainforest).

Freedom's Children: Young Civil Rights Activists Tell Their Own Stories, edited by Ellen Levine (New York: Avon, 1994). Although this book presents oral histories rather than biographies, it powerfully illustrates how individuals can make a difference by working for change in their communities and country.

Ida B. Wells-Barnett: Woman of Courage, by Elizabeth Van Steenwyk (New York: Watts, 1992).

It's Our World, Too! Stories of Young People Who Are Making a Difference, by Phillip Hoose (Boston: Joy Street, 1993).

Kids with Courage: True Stories About Young People Making a Difference, by Barbara A. Lewis (Minneapolis, MN: Free Spirit Publishing, 1992).

John Muir, by Eden Force (Englewood Cliffs, NJ: Silver Burdett Press, 1990).

Marian Wright Edelman: Fighting for Children's Rights, by Wendie Old (Springfield, NJ: Enslow, 1995).

Mother Jones: One Woman's Fight for Labor, by Betsy Harvey Kraft (New York: Clarion, 1995).

Rachel Carson: Biologist and Author, by Marty Jezer (New York: Chelsea House, 1988).

Thurgood Marshall: Civil Rights Champion, by D.J. Herda (Hillsdale, NJ: Enslow, 1995).

Who Cares? Millions Do...A Book About Altruism, by Milton Meltzer (New York: Walker, 1994).

Women of Peace: Nobel Peace Prize Winners, by Anne Schraff (Hillsdale, NJ: Enslow, 1994).

Novels for Young People

In conjunction with an integrated service learning unit, students could read and discuss novels about young people who perform service or are activists. Novels about the particular topics on which your integrated unit focuses may also be available. The examples annotated below are designed to provide an idea of the range of YA novels available.

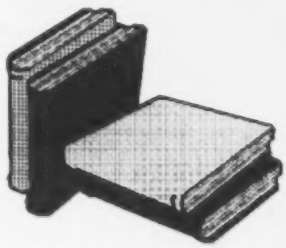
The Bomb, by Theodore Taylor (San Diego: Harcourt Brace, 1995). Set on the island of Bikini, this novel begins in

© 1998 SSEC

March 1944, as Americans are about to liberate the island from the Japanese. Over the next few years, however, the Americans also bring trouble to the island's residents, including teenager Sorry Rinamu, as they choose the Bikini Atoll as a test site for atomic weapons. Sorry decides to take desperate action to try to stop the bombing he believes will destroy his home land forever.

Checking on the Moon, by Jenny Davis (New York: Orchard Books, 1991). Thirteen-year-old Cab Davis and her older brother Bill find themselves spending the summer in Pittsburgh while their mother honeymoons in Europe with her new husband. When an elderly neighbor is mugged and Bill's new girlfriend is raped, the neighbors band together to restore safety to their community. The strategies they use include neighborhood patrols, public education, and a vigil.

Crash, by Jerry Spinelli (New York; Knopf, 1996). Crash, A.K.A. John Coogan, is a seventh-grader whose physical size allows him to exercise power—without authority—over classmates. Crash thinks both his sister Abby and his neighbor, Penn Webb, are dweebs, especially when they get involved in protesting a new shopping mall. As a series of adventures take Crash through the school year, however, he begins to respect values that Penn and Abby practice—honesty, caring, hard work, and nonviolence.



Earth to Matthew, by Paul Danzinger (New York: Delacorte Press, 1991). A light-hearted look at how Matthew and his friends in the sixth-grade deal with such problems as a sister who shaves her head and pierces her nose, divorcing parents, and budding boy-girl relationships. At the same time, they are engaged in a class study of ecosystems that culminates in an overnight trip to the Franklin Institute. A great deal of information about ecosystems is embedded in the story, which also makes interesting comparisons between ecosystems and family relationships. Students will find many ideas for research and action in the book.

Just Like Martin, by Ossie Davis (New York: Simon and Schuster, 1992). This book recounts the story of a young African-American boy who wants to emulate Martin Luther King by participating in the civil rights movement and being nonviolent. The child's father, who served in Korea, feels that nonviolence won't work and fears his son will be hurt if he participates in demonstrations. Despite the restrictions placed on him by his father, young Stone finds a variety of ways to help his community.

© 1998 SSEC

Matt's Crusade, by Margot Marek (New York: Macmillan, 1988). Matt and his family are at odds over his position on nuclear weapons. Along with *Not Just Party Girls* and *The Wendy Puzzle*, this book would provide a good stimulant for discussion of possible negative social effects of becoming an activist or how a person who becomes passionate about an issue can retain his/her ability to interact with others.

Maudie and Me and the Dirty Book, by Betty Miles (New York: Knopf, 1980). Middle-schooler Kate becomes involved in a cross-age reading project. When the book she selects to read sparks a first-grade discussion of reproduction, a community uproar results. Kate ultimately speaks up for her views at a community forum on the issue. Students who have read the book can brainstorm ways they would have reacted to the controversy, as well as possible controversies their own service projects might generate.

Not Just Party Girls, by Jeanne Betancourt (New York: Bantam, 1989). Sixteen-year-old Anne has a birthday party business with her friends. However, when she becomes involved in efforts to improve living conditions for migrant workers in her community, she comes to view the business as superficial, a perspective that creates conflict with her friends.

Rio Grande Stories, by Caroly Meyer (San Diego: Gulliver Books, 1994). Seventh-graders in an Albuquerque middle school are looking for a fund-raising project when they hit upon the idea of creating a book that reflects the diverse heritage of their community. As the students work on their chapters, they learn more about their own heritage, as well as the values that hold the community together. The product not only raises money, it is a service to the entire school community and a source of great pride.

Seedfolks, by Paul Flesichman (New York: HarperCollins, 1997). The voices of 13 residents of a Cleveland neighborhood describe how and why they become involved in turning an empty lot into a garden. While their reasons for becoming involved are diverse, their shared interest and activity create a true community in a rewarding and informative story.

A Small Civil War, by John Neufeld (New York: Atheneum, 1996). The small town of Owanka erupts in controversy when a group of parents protests inclusion of *The Grapes of Wrath* in the tenth-grade curriculum. Eighth-grader Georgia becomes a leader in the group "Freedom Is Reading Is Freedom" but is appalled when her father supports those who want the book removed.

© 1998 SSEC

The Unsinkable Molly Malone, by Mary Anderson (San Diego: Harcourt Brace Jovanovich, 1991). Molly Malone is an unusual 16-year-old. Not only does she supplement her family income by selling her artwork on the street and take social and economic issues so seriously that many of her friends do not understand her, she also gives art lessons to children in a homeless hotel. When two of her young students suffer traumas, she decides that she must do more to help them. She also discovers that while some people think she is too serious, others admire and respect her for who she is.

The Weirdo, by Theodore Taylor (San Diego: Harcourt Brace Jovanovich, 1991). Chip Clewt and his friend Samantha work to protect the neighboring wildlife refuge from hunters. Despite opposition from friends and family, the two gain government support for their position. The story of their work and their attempts to solve a murder are interspersed with excerpts from college compositions Chip wrote in the year following the controversy; the essays, which describe Chip's observations in the refuge, provide a lovely counterpoint to the turmoil of the human story.

The Wendy Puzzle, by Florence Parry Heide (New York: Holiday House, 1982). A young teen is puzzled and offended by her sister Wendy's behavior when Wendy becomes so concerned with the environment that she argues constantly with family, neighbors, and classmates. Wendy's effort to organize a petition campaign about an environmental issue fails, but her concern is ultimately justified when a hazardous waste spill causes the people of the community to evacuate their homes.

Poetry

Many of the topics on which students might focus in their integrated service learning units have been the subject of poetry, a fact that could be explored in the language arts component of the unit. For example, nature and close observation of nature have inspired many poets, including poets writing specifically for young people. Many of Constance Levy's poems in *I'm Going to Pet a Worm Today* (New York: McElderry Books, 1991) provide a close-up look at small portions of the environment; for example, the very first poem in the collection, "Tree Coming Up," describes the place where the shoot of an oak tree breaks through the earth. Students could read and discuss this poem before taking part in a science activity involving close observation of aspects of the natural environment; they could then share their observations by writing poems.

© 1998 SSEC

The different ways in which particular species affect humans can be seen in *If the Owl Calls Again: A Collection of Owl Poems*, selected by Myra Cohn Livingston (New York: McElderry Books, 1990). This collection shows diverse perspectives on the owl. As part of a biodiversity unit, students could use the collection as inspiration for their own poems on particular species.

Poetry can also be used to explore social issues. For example, the collection *Rising Voices: Writings of Young Native Americans*, edited by Arlene B. Hirschfelder and Beverly R. Singer (New York: Scribner's, 1992), contains poetry on racism and prejudice directed at Native Americans. *Cool Salsa: Bilingual Poems on Growing Up Latino in the United States*, edited by Lori Carlson (New York: Henry Holt, 1994) and *Pass It On*, edited by Wade Hudson (New York: Scholastic, 1993) also present poems on racism (and many other topics) from the Latino and African American perspectives. Racism and urban problems are topics of some of the poems presented in the marvelous collection, *Celebrate America in Poetry and Art*, edited by Nora Panzer (New York: Hyperion Books, 1994). A teen perspective on a variety of social issues can be found in *Skin Deep and Other Teenage Reflections*, by Angela Shelf Medearis (New York: Macmillan, 1995).

Not only can poems be used to introduce varying viewpoints on the issues students are exploring, they can also be presented as models for ways in which students can express their own feelings and views. Thus, poetry writing can be used as part of the language arts component of the integrated unit.

Reading to Younger Children

Picture books can also provide a tie between the language arts curriculum and an integrated service learning unit. Middle school students might be surprised to learn how well the simple language and stunning illustrations of picture books can convey information and views on complex issues. Select a picture book related to the issue or topic of your integrated unit and read it aloud to the class. Discuss with students the techniques the author and illustrator use to convey information and attitudes about the issue. How might younger students react to this book? What questions would they have about the issues?

Allow students time to review several picture books and select one or more to read to younger students, either at a nearby elementary school or during story hour at the local library. Help students prepare some follow-up questions, as

© 1998 SSEC

well as answers to questions they anticipate the younger students may have.

After the reading, discuss the younger students' responses. What aspects of the writing and illustrations were effective in getting ideas across to young people? What makes a good story about a social issue?

As a culminating activity, students could create their own picture books for younger children, either focused on the topic/central issue of the integrated unit or on the service experience itself. They should use the criteria for a good story developed in their earlier discussions in creating their stories. The products could be donated to an elementary school, day care center, or children's ward of a hospital.

Many picture books deal with social issues. The following list is intended to be suggestive of the range of books available:

The Christmas Menorahs: How a Town Fought Hate, by Janice Cohn (Morton Grove, IL: Albert Whitman, 1995). The story of how the community of Billings, Montana, worked together to fight anti-Semitism and racism.

Everglades, by Jean Craighead George (New York: Harper Trophy, 1995). A Seminole storyteller tells about the vanishing inhabitants of the Everglades.

Fly Away Home, by Eve Bunting (Boston: Clarion Books, 1991). A homeless boy and his father live in the airport until they can save enough money to rent an apartment.

The Forgotten Forest, by Laurence Anholt (San Francisco: Sierra Club Books, 1992). Just in time to save the last forest, children remind adults why trees are important.

Just a Dream, by Chris Van Allsburg (New York: Houghton Mifflin, 1990). Walter dreams about how pollution changes earth and awakens ready to recycle and clean up the environment.

Mrs. Katz and Tush, by Patricia Polacco (New York: Bantam Books, 1992). Mrs. Katz is an elderly widow, and she is lonely. As young Larnel gets to know her, he realizes that they have things in common even though they are outwardly different.

Red Ribbon, by Sarah Weeks (New York: HarperCollins, 1995). Eight-year-old Jenny learns about AIDS when her neighbor contracts the disease.

© 1998 SSEC

Somebody Somewhere Knows My Name, by Linda Lowery (Minneapolis: Carolrhoda, 1995). Two abandoned children learn to trust again while staying at an emergency shelter.

The Storm, by Marc Harshman (New York: Cobblehill, 1995). Jonathan faces prejudice because he is in a wheelchair. When he faces a tornado by himself, he learns to come to terms with his disability.

Uncle Willie and the Soup Kitchen, by DyAnne DiSalvo-Ryan (New York: Morrow Junior Books, 1991). Uncle Willie's nephew volunteers with him at the soup kitchen, where he learns to appreciate those who help others.

Window, by Jeannie Baker (New York: Greenwillow Books, 1991). This nearly-wordless book uses marvelous collages to show how development changes an area.

Research Papers

Many teachers ask their students to do research papers on the topics/issues being addressed through their service projects. Two research skills that are especially appropriate to focus on in conjunction with such papers are using the newspaper and conducting interviews. Students can be introduced to the various parts of the newspaper and collect articles on their topic and how the topic affects the community. Microfiche newspaper collections at the library can be used to develop historical perspective on the issue.

In preparation for gathering information through interviews (with, for example, public officials, people who work at community agencies, adult volunteers, recipients of service), students will need practice identifying the kinds of information they hope to obtain from a particular interview subject and developing questions designed to elicit that information. Practice in a simulated interview will help them feel more comfortable asking questions and taking notes, as well as give them practice developing appropriate follow-up questions during an interview. Students can take turns role playing the interviews while other students observe and provide feedback on their interviewing techniques.

Today's students often want to rely on the Internet as their sole source of information. While online resources can be very useful, our own work in this area suggests some cautions. To avoid undue wasted time, students should develop a search strategy before they go online. They should also be required to document material derived from online sources exactly as they would information from any other source.

© 1998 SSEC

Similarly, they should be encouraged to evaluate information obtained online just as they would information from other sources; because something is posted on the Web does not make it true, balanced, or helpful!

Writing/Speaking

Developing writing and speaking skills can be an important part of an integrated service learning unit. For example, writing may be a part of the service itself. Agencies may have a need that students can meet through writing: a food bank may need newsletter articles, a nature preserve may need a handout for children, a recycling center may need information written to announce new hours or services. Students can also write articles about the issue they are studying and their service project for school or local newspapers. Among the types of articles they might write are interviews with the community people they work with, a survey of reactions to the project, or an opinion essay about the need being addressed.

Students could also write various kinds of educational materials. For example, they could prepare a handbook describing how to plan and carry out a service project, write lessons or stories for younger children, or write skits or plays to be presented to younger children, parents, or other members of the community. Models of books in which authors and illustrators have donated their work to help educate others (and the proceeds of the book to help solve problems) include *Home: A Collaboration of Distinguished Authors and Illustrators of Children's Books to Aid the Homeless*, edited by Michael J. Rosen (New York: HarperCollins, 1992), and *The Big Book for Our Planet*, edited by Ann Durrell, Jean Craighead George, and Katherine Paterson (New York: Dutton, 1993). Students could use these books for inspiration, as well as sources of ideas for creating excellent products.

After taking part in an integrated service learning unit, students might wish to take such actions as writing to public officials regarding policies related to the issue with which they were involved. Thus, a language arts unit on the techniques of persuasive writing or speech might be taught as part of the service unit. Students could analyze examples of persuasive writing and speech, identifying such techniques as using value-laden or "loaded" language; referring to a respected or venerable source; predicting valued or extremely negative consequences; appealing to common knowledge or common sense; providing data; using logic; and using pathos. Students could then use the techniques they find effective to write their own essays and letters.

© 1998 SSEC

Chapter 4

New Resources

Service learning advocates and practitioners are constantly producing new resources on service learning. This brief listing includes only new resources (produced since we published *Service Learning in the Middle School Curriculum* in 1996) that we think are especially helpful to middle school educators and students. Many of these items contain bibliographies or resource lists, which can further expand your awareness of available resources.

Addison-Jacobson, Jill, and Don Hill, *Building Support for Service Learning* (Palo Alto, CA: Service Learning 2000 Center, 1996). This pamphlet contains suggestions for developing support for teacher learning among teachers, the community, and students. It also explains how service can be linked to other school reform efforts and gives tips for gaining financial support for a service program.

Batenburg, Mark, and Denise Clark Pope, *The Evaluation Handbook: Practical Tools for Evaluating Service Learning Programs* (Palo Alto, CA: Service Learning 2000 Center, 1997). Assessment can be one of the most challenging parts of planning a service learning project. This handbook is an instruction manual and workbook for evaluation planning, complete with planning tools and examples that teachers should find very useful.

"Community Service Learning," special issue of *Theory Into Practice* (Summer 1997). Guest editor Sandra LeSourd has solicited work from contributors whose "diverse perspectives allow the reader to appreciate the various meanings, purposes, and realities inspired by one vision. Some contributors explain the historical foundation, moral justifications, or intellectual timeliness of the vision. Others have concentrated on the application of concepts through program design and operation." Contributors include Mary Hepburn, Todd Clark, Joan Schine, Ron Schukar, Rahima Wade, and others.

"Connecting Kids to Communities," special section of *Middle School Journal* (November 1996). This special section includes serveral useful articles on service learning. An

© 1998 SSEC

especially useful article by Elaine Andrus clearly differentiates between service learning and community service, illustrates curriculum links, and provides an overview of "nuts and bolts" issues in planning service projects.

Eyler, Janet, Dwight E. Giles, Jr., and Angela Schmiede, *A Practitioner's Guide to Reflection in Service-Learning: Student Voices and Reflections* (Nashville, TN: Vanderbilt University, 1996). Reflection is a critical element of service learning. This resource on reflection provides an overview of the role of reflection, presents students' thoughts about the value of reflection, and suggests a number of techniques for encouraging reflection. A bibliography is included.

Fertman, Carl I., George P. White, and Louis J. White, *Service Learning in the Middle School: Building a Culture of Service* (Columbus, OH: National Middle School Association, 1996). The authors of this resource, believing that middle schools "provide a particularly favorable environment in which to create a culture of service that truly links service and learning," provide an overview of service learning and the steps necessary to implement service learning at the middle school level. Case studies and a resource list are also included.

Guide to Working with the Media, A (Washington, DC: Corporation for National Service, 1997). Media coverage can result in community and financial support for service projects, but it is not always easy to convince media representatives to cover school events. This guide presents tips for developing a media plan, getting information to the media, working with reporters, and using public service announcements.

Kempf, Stephanie, *Finding Solutions to Hunger: Kids Can Make a Difference* (New York: World Hunger Year, 1997). This guide presents 25 lessons for teaching about hunger, each with a service or action component. Not only would the guide be useful for those planning a service project around issues of hunger, it is also a helpful model of how service can be integrated with study of a topic on an ongoing basis.

Kinsley, Carol W., and Kate McPherson, *Enriching the Curriculum Through Service Learning* (Alexandria, VA: Association for Supervision and Curriculum Development, 1995). These authors are particularly concerned with how service learning can be a vehicle for school reform. They describe 21 service learning programs that "alter the way teachers teach, the way the school day operates, the ways young people learn and grow in the context of their schooling, the way young people can connect to and help build their community, and the way school is viewed in the community."

© 1998 SSEC

Lewis, Barbara A., *The Kid's Guide to Service Projects* (Minneapolis, MN: Free Spirit Publishing, 1995). The subtitle of this book, "Over 500 Service Ideas for Young People Who Want to Make a Difference," is descriptive. Organized around such topics as animals, community development and beautification, crime fighting, health, homeless people, literacy, and more, the ideas should spark many service project ideas for students and teachers alike.

Melchior, Alan, *National Evaluation of Learn and Serve America School and Community-Based Programs* (Washington, DC: Corporation for National Service, 1997). This report of an evaluation of the impact of participation in selected well-designed Learn and Serve America programs presents several findings of note: the programs studied had significant positive effects on civic and educational development of participants; students rated the programs positively, expressing satisfaction with the experience and recognizing both the value of their work and what they learned; and community agencies rated service provided by the students very highly as well.

Schine, Joan, ed., *Service Learning: Ninety-sixth Yearbook of the National Society for the Study of Education* (Chicago: University of Chicago Press, 1997). This yearbook presents 14 essays addressing a "wide variety of the issues that educators, policymakers, and all of us must explore as we seek to expand our understanding of the burgeoning field of service learning." Among the topics covered are service learning as a vehicle for youth development, the role of the state, academic achievement and service learning, and service learning in teacher preparation.

"School-Based Community Service Learning," special section of *The Social Studies* (September/October 1997). This special section contains several substantive articles on the challenges and rewards of integrating service learning with the curriculum, especially in social studies, along with a reprint of the "Standards of Quality for School-Based and Community-Based Service Learning."

Things that Work in Community Service Learning (Springfield, MA: Community Service Learning Center, 1995). This series of monographs describe successful middle school service learning projects. The essays were written by teachers in all the content areas, who describe the cirriculum units taught in their classrooms.

Wade, Rahima C., ed., *Community Service-Learning: A Guide to Including Service in the Public School Curriculum* (Albany: State University of New York Press, 1997). This com-

© 1998 SSEC

prehensive book is divided into four sections. The first contains chapters that look at the essential elements of quality service learning practice. The second provides concrete examples of service learning programs in the schools. The third section provides "Voices from the Field," reflections from students, community agency personnel, administrators, parents, teachers, and others involved with service learning. The last section of the book examines issues that will determine the future of service learning.

Wade, Rahima, and David W. Saxe, "Community Service-Learning in the Social Studies: Historical Roots, Empirical Evidence, Critical Issues," *Theory and Research in Social Education* (Fall 1996). This article provides one of the best available reviews of research on the effects of service learning on students. The authors also make recommendations for further research in the field.

© 1998 SSEC

RECYCLING
CENTER